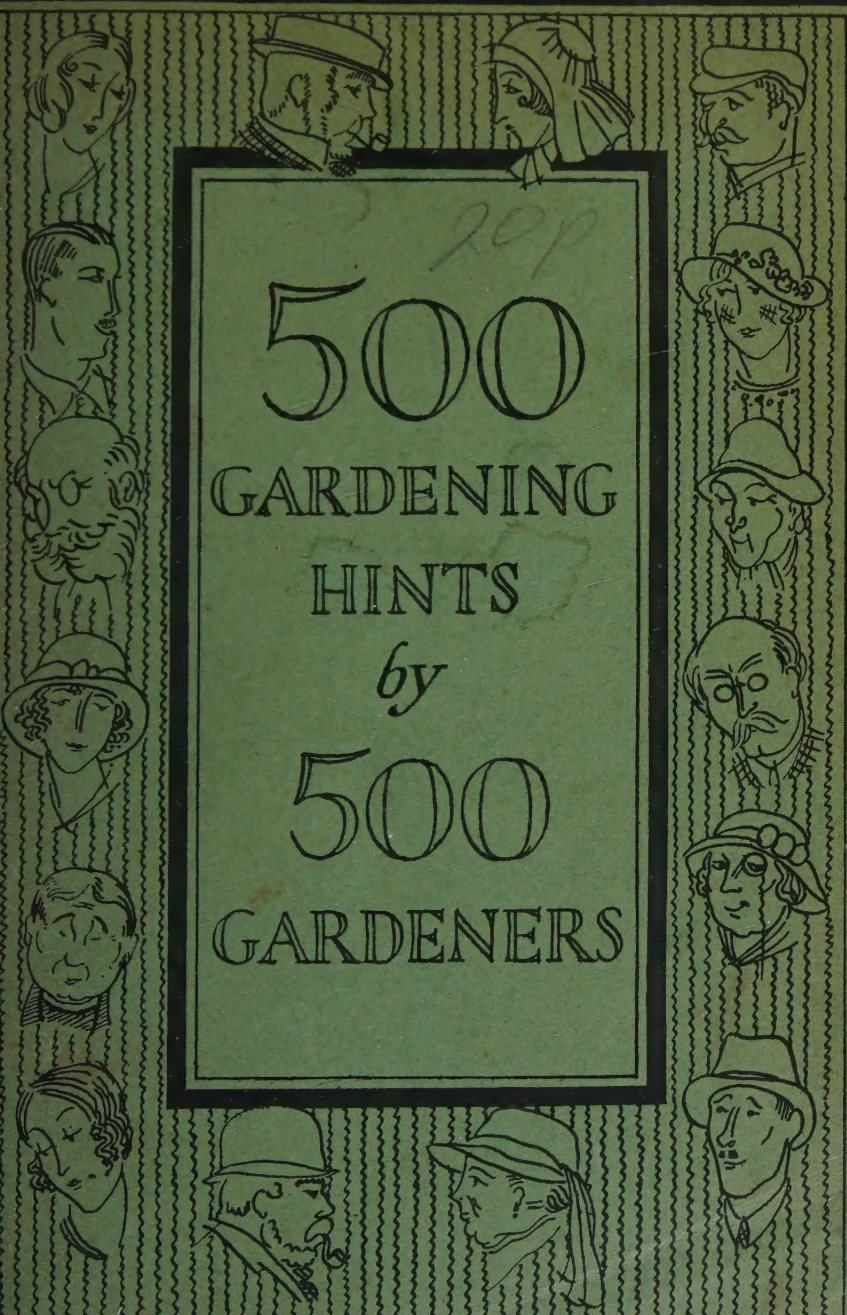


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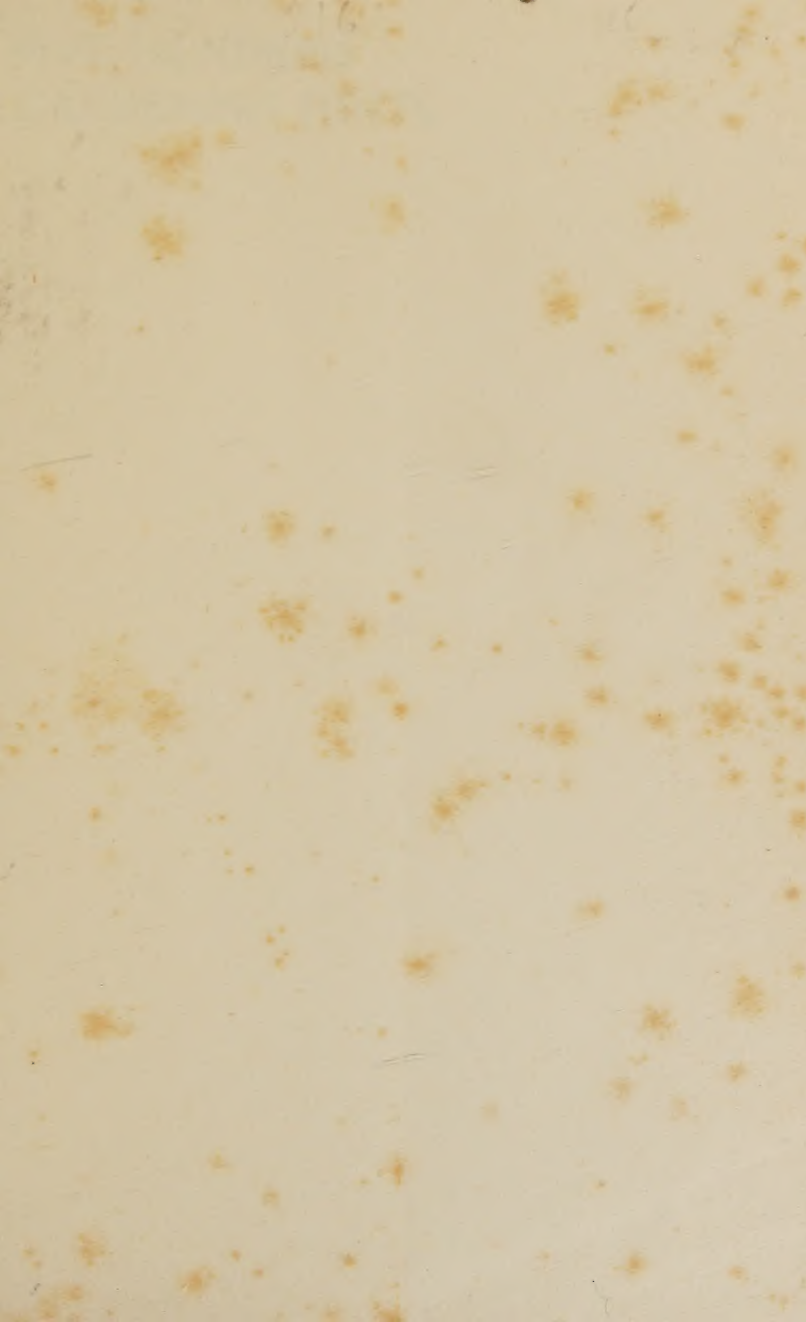
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FIVE HUNDRED GARDENING HINTS

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GARDENERS

LONDON
COUNTRY LIFE

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THE PREFACE

THE success which has attended a previous little Book of Wisdom entitled "Five Hundred Household Hints," in which the Editor collected together the experience of five hundred Housewives, led him to consider whether Adam also might not be justified in recording his discoveries for the benefit of fellow toilers; for Adam undoubtedly delved before Eve span. Though if Eve was anything like her modern daughters she was certainly as good a gardener as was her lord and master. At any rate, she is amply represented in the pages of this book.

The hints have been culled from *Homes and Gardens* and *The Garden*, to which those who are wise in gardening lore have long contributed the fruits of their experience. The Editor confesses that he has not been able to make trial himself of all these hints, but they come from those who have practised what they preach, and to that extent may be regarded as authentic. He does know, however, something of the many tribulations which a gardener suffers, not always in silence, and of the many slips between the cup of sowing and the lip of plucking. The slugs have feasted off his cabbages, the birds have eaten his fruit, and the rabbits have nibbled away his plants in winter. Like all gardeners, he nods his head wisely and declares he will not make such mistakes next year, with a shrewd suspicion all the time that he will be declaring the same thing the last autumn of his life. At all events, he has long reached the conviction that a lifelong of summers will not suffice to learn everything from his own experience, and that an ounce of wisdom in April is worth a bushel in October.

The hints will be found to fall into rough groups, and as far as possible, all that pertains to a particular plant, or a particular aspect of gardening, is brought together, so that the reader may compare the different remedies and make choice himself of which to try. The ample Index at the beginning is the key to the whole. And if, gentle reader, you know a better method of killing slugs, sowing peas, or propagating your favourite plant, than that which is advocated here, pray be not scornful; rather take pen and describe your superior method to the Editor, who will thank you in the name of the brotherhood and sisterhood of gardeners, and will publish it, perhaps, anon in the succeeding editions which he profoundly hopes will be called for.

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THE FIVE HUNDRED HINTS

PESTS, DISEASES, AND WEEDS

1. *Keeping Slugs from Plants.*

To protect a bed of plants of which slugs are very fond, it is a good plan to plant a small hedge of lavender, as the pests seem to dislike it. In this manner I have kept strawberries and violets free of slugs; while in beds where no lavender has been used they have had a good feast.—M.

2. *To trap Slugs.*

We have had a great many large slugs recently and have been at our wits' end to know how to get rid of them. We find that by putting a little dry bran on the ground and covering it with a slate, the slugs are attracted to it and have been prevented from attacking seedlings. The slugs stay on the bran and can be killed in the morning.—G. T.

3. *Another Way of Trapping Slugs.*

Put a teacup, or any small pot or tin, three-parts full of milk in the soil, so that the slugs can get into it. They are as fond of milk as leeches are of blood, and they will drink it until they fall in and get drowned. In this way I have caught as many as forty-five in one cup in a single night. During wet weather the cup can be protected by placing four pegs on the ground, and a slate over the top, about an inch above the cup.—H. G.

4. *And Another.*

I have found that an excellent method of trapping slugs is to let into the ground, at intervals, a soup plate or deep saucer almost filled with sweetened beer. This attracts the pests from

a considerable number of yards, and, having entered the contents of the plate, they are unable to get away, and die.—T.

5. *And yet Another.*

If orange peelings are placed upside down on the border, slugs collect under them on wet days. The slugs can then be gathered easily, and destroyed by putting them in a strong salt solution.—M. B.

6. *Slugs and Chrysanthemums.*

Slugs have a great liking for young chrysanthemum shoots, and not infrequently make destructive attacks upon them even before they appear above ground. When the old stools are laid in and the cuttings are slow or weakly, slug trouble may be suspected. In a 2-gall. can of water put half a teaspoonful of permanganate of potash and half a teaspoonful of salt. Use this to water over the plants. It will do the chrysanthemums no harm; it will not even kill the slugs, but it brings them to the surface in a few seconds, and they can then be collected and despatched.—X.

7. *Protection against Slugs.*

So many people burn "Perfection" stoves now, that those among them who are gardeners may be glad to know that the perforated zinc collars that surround the wicks may be put to a very practical use in the garden, when the wicks are done for. They should first be put in the fire to burn away every scrap of wick and then the collars are most useful to protect small plants and bulbs from the ravages of slugs. They should be pressed well into the soil round the plant with the sharper rim uppermost. I have always found them most effective in the rock garden.—M. H.

8. *To insure Plants against Slugs.*

To be absolutely sure of keeping slugs away from a valuable plant, say a very expensive new delphinium, take a piece of old thick felt or similar stuff, cut it into strips of 1 in. broad, surround your plants or beds with these strips and soak the latter with petrol. Repeat the soaking in dry weather every week; in damp weather the petrol will retain its effect even two weeks after soaking. Never a slug will try to pass the petrol rings. I use this method especially on beds of young

delphiniums, of which slugs are very fond. Thus I saved fully 100 per cent. of my seedling plants in the past three years. The remedy is inexpensive, and the petrol easily poured from a tin can having a slender spout, while rain does not diminish the effectiveness of this treatment.—M. W.

9. *A Remedy for Slugs.*

One of the best remedies for the slug pest is made by mixing one part of finely powdered alum with seven parts of slaked lime. This should be very thoroughly mixed together and passed through a very fine sieve. This may be scattered freely on mild evenings when the slugs are above ground. With the exception of the lime haters, no plants are injured by being covered with the powder.—H. C. W.

10. *To kill Slugs.*

Sink old jars or tins in the earth until their tops are level with the ground around them. Fill them with salt and water right up to the brim, and sprinkle the top with a good layer of dry bran, which will float, unless too much is used. The slugs, attracted by the bran, crawl on to it and sink. I have caught numbers in this way.—M. H.

11. *Slugs and Delphiniums.*

Slugs are very fond of eating off the crowns of delphinium plants during the spring months, and strong shoots which would have produced stately flower spikes are often destroyed by them. Fumigants are useful, but there is a better way of circumventing the enemy; just put a good layer of coke breeze on and around each plant. The shoots come up through it stout and strong, and not a slug will face it to reach them. It is very little trouble, yet effective.—R.

12. *More about Slugs.*

If a collar of sheet zinc about $1\frac{1}{2}$ ins. high is made to encircle a small plant and pushed into the soil so that about 1 in. projects, it is a most effective way of protecting young plants, such as lupins, pyrethrums, etc. Occasionally the collar should be cleaned, as earth splashed up during heavy rain may coat it. The collar must only just encircle the plant, or slugs may get inside it from underneath. These collars will last for years.—A. H. H.

13. *To get rid of Moles.*

Moles often make their runs in cultivated ground, where they do damage to the roots, besides throwing up unsightly "mole-hills." Procure a small quantity of carbide of calcium, such as is sold to be used in bicycle lamps, etc. With a trowel remove the loose soil from a mole-hill and dig carefully down until you open the run. See that this is clear in either direction, then put into each open end of the run a few lumps of the carbide, cover with soil and smooth down. The moisture in the soil acts on the carbide and produces a gas which will kill any mole with which it comes in contact, and insure freedom from moles over a wide area. Should another mole-hill appear—which is very unlikely, as moles are very sensitive to smell—the same method should be repeated.—E. A.

14. *Another Way with Moles.*

Moles are often a great pest in gardens, and I was for several years much bothered by their runs in my flower borders, until I tried the following experiment, which has completely sent them away. On seeing a fresh run I immediately took a bamboo cane and made a hole into the centre of the run, then I dropped into the hole two or three moth balls (naphthaline) and re-covered with soil; this drove away the moles.—A. H. H.

15. *To destroy Wireworms.*

This pernicious pest, which lives in the soil for from three to five years, is the larva of a small beetle, and is very difficult to destroy. The free use of soot and lime will kill the smaller specimens, while special crops may be protected from their ravages by placing carrots in the soil. These should be examined every other day, not only for wireworms, but also for the click beetle, which is the mature stage of this pest. When taking in pasture for garden ground, skim the turf during late spring, when any wireworms present will be just below the surface; if the turf is stacked in layers and burnt with lime, the pest will be destroyed. When turf is taken off during the winter, the wireworms are deep in the soil, and crops usually suffer

badly during the first three or four years of cultivation. Soil fumigants are also effective in exterminating wireworms.—M.

16. *A Cunning Way with Wireworms.*

Wireworms are very destructive pests, especially in summer, when they attack all kinds of root crops. A favourite food of wireworms is potatoes, and you can turn this liking to good account in getting rid of them. Get some old tins, pierce the sides with holes made by a bradawl, attach a wire handle, then fill with potato bits or peelings. Bury these traps in the garden, and pull them up in a month's time. They will be found full of wireworms, which you can then destroy. This is a most efficient way of getting rid of both wireworms and millipedes, as the pests scent the food from a distance away, and soon find their way to the traps.—M. J.

17. *A Short Way with Wireworms.*

When all the root crops are lifted and stored, many gardeners look round to find a suitable means of getting rid of wireworm. An old plan and a very good one is to slay him with kindness. Insert among your plants tempting lumps of linseed cattle-cake as big as walnuts, just lightly buried in the earth. He will feed greedily on this until his jacket becomes over-distended. What follows is better imagined than described; but there is no more wireworm. Many remedies are advocated, but this is the simplest.—W. W.

18. *Extermination of Wireworm in Tomato Borders.*

This pest is the most difficult to get rid of by any simple application of an insecticide. Tomato borders in the greenhouse, when made up with fresh turf, are generally infested with it. The following method of dealing with the trouble has proved most successful. Give a heavy dressing over the surface of the borders of a naphthalene preparation (sold for destroying wireworms), and fork this in about 3 ins. deep, afterwards raking over and making it firm. Before nightfall, place some old sacks or boxes of soil on the border, and next morning, on lifting these articles, dozens of wireworms will be found hiding under them. They can then be picked up and destroyed. No other method has proved so successful.—F. L.

19. *To get rid of Carrot Fly.*

If you have a bed of carrots and you suddenly see with dismay the carrot fly has been at work and its maggots have started on the roots of the carrots, get some *unslaked* lime, mix it with water at the rate of two handfuls of lime to four quarts of water, and with this mixture water all those carrots showing signs of maggot, and you will save your whole bed; do it when the ground is moist or water with clear water first; I have watered the whole bed sometimes with lime water if there has been signs of maggot in more than one patch.

E. C.

20. *Checking Carrot Fly.*

As the season approaches we must be prepared for the attack of such pests, and "prevention is always better than a cure." Get a pailful of sand, moisten with paraffin, and as soon as the seeds germinate sprinkle between the rows. Continue to do this weekly during May, June, and July. Following this I am able to grow carrots which before were always victims of the carrot fly.—W. T.

21. *More about Carrot Fly.*

(1) *Never* thin or weed carrots except after rain; (2) use the Dutch hoe once a week between the rows; (3) scatter old soot around the young plants; (4) in prolonged dry weather spray young carrots with weak "Abol" solution.—W.

22. *Protection of Valuable Plants from Pests.*

It is dangerous to lay poison for mice and rabbits; one can never tell where vermin will carry it. Plants, etc., may be made distasteful to all these pests by spraying them with paraffin emulsion. This is made by boiling 4 oz. of soft soap in a gallon of water; when dissolved, take the pot off the fire and gradually stir a gallon of paraffin into it. Churn the mixture forcibly with the syringe until the whole becomes like a creamy paint. To one part of this add twelve to fifteen parts of cold water. Stir well before using. What is not used bottle off and the emulsion will keep indefinitely until required. See that no free paraffin comes to the top after twenty-four hours. If so, add more soap. Paraffin emulsion should not be used on roses.—W. R. P.

23. *Rabbits !*

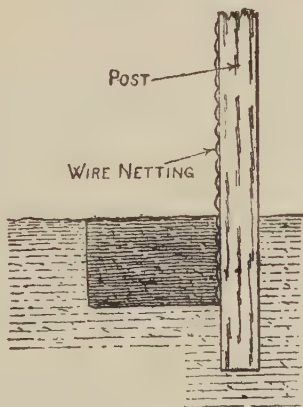
Sprinkle a little creosote round the edge of the garden, or round the beds, and the rabbits will not cross over it. My garden was overrun with rabbits, which nibbled vegetables and flowers, but now I have no trouble with them.—A. M. H.

24. *Another Way with Rabbits.*

It is not widely known that fox oil is a sure protection against damage by rabbits in the garden. This rather evil-smelling oil is dissolved in a lathery solution of soft soap until a liquid the colour of weak coffee is obtained, which liquid may then be sprayed on the plants attacked. It is not wise to use the solution on vegetables owing to the horrible taste of the fox oils. In badly infested areas it is a good plan to run all round the garden string soaked in the pure oil. Rabbits detest the smell, and will never pass such a barrage. Fox oil is known also as animal oil, bone oil, hartshorn dregs, and Dippell's oil, and is frequently used by farmers to protect fields of young turnips and mangolds from rabbits.—S.

25. *A Rabbit-proof Fence.*

In country districts, and on the outskirts of towns, rabbits often prove a great nuisance to the gardener, owing to their burrowing habits. Wire netting, if used in the usual way, does not afford a complete barrier, for the rabbits force their way in at the point where the netting touches the ground. To make the fence rabbit-proof, open out a trench 6 ins. deep and 12 ins. wide on the inside of the fence; then bring the netting down to the bottom of the trench in the way shown by the accompanying sketch, fixing it securely to the posts with staples. Finally, fill in the trench with soil, and tread this firmly down.—B. L. S.



26. *Cucumbers and Red Spider.*

Red spider very often becomes rampant on cucumbers, and it is not easy to use insecticides without risk of damaging the foliage. Heavy syringing and damping will not keep it in check. The best remedy is flowers of sulphur dusted on the foliage with one of the powder sprayers. This, if used when the first signs of an attack are seen, and at weekly intervals, will keep the plants clean throughout the season. The same plan of attack against this pest on peaches, nectarines, and gooseberries has also been a success, and for pot plants it is quite safe and easy to apply, by holding the plant upside down and dusting the leaves by hand.—L.

27. *Red Spider on Tree Carnations.*

Procure a sheet of corrugated iron and place near a water tap with a hosepipe attached. If no hosepipe available a good syringe with a jet fitted will do as well. Slightly raise one end of the tin so that the water will run off down a grating, then lay a plant on its side on the tin and commence to spray the plant thoroughly, using plenty of pressure of water. Turn the plant round occasionally so that every part, both the under and the top sides of the leaves, is thoroughly syringed and the minute insects washed away. This is a much cheaper way than using insecticide, and just as effective.—J. H.

28. *Getting rid of Mice and Rats.*

We have had many plagues of mice, and one or two of rats. On each occasion the trouble has been completely overcome within a couple of days by means of that most excellent bacterial product, Liverpool Virus. This must, of course, be fresh; there is no danger, and, *mirabile dictu*, there is never a trace of the departed ones, who, we are told, seek the open before yielding to the deadly onslaught of scientific medicine.—H.

29. *Protecting Seeds from Mice.*

Mice and birds are the cause of considerable trouble among the seeds in the garden. Peas, beans, and radishes are often damaged. As a preventive, moisten the seeds with water or paraffin and roll them in a saucer of red lead powder before sowing.—H. E. B.

30. *Green Fly on Potted Plants.*

A quick and simple method of exterminating these pests is to mix a large basin full of "Lux," prepared in the ordinary way. With one hand hold the plant and soil firmly in the pot, and with the other immerse the affected leaves for two or three minutes. Afterwards rinse in clear water.—N. W.

31. *Keeping Green Fly in Check.*

For green fly I am a great believer in frequent syringing with clear water, but do not wait until the pest appears. I do not care for paraffin. Soap-suds are all right if washed off with clear water. The well-known specific is: $\frac{1}{2}$ lb. of quassia chips soaked in cold water for 3 hours, boil several hours in 4 quarts of water (which will need replenishing), strain the liquor off the chips, add 1 oz. of soap, and water down to 5 gallons. Another recipe is: 2 ozs. cheap tobacco, a fistful of soft soap placed in a coal bucket half-full of hot water, stir up till it is all well mixed, fill up with cold water, and syringe infected parts of stems and foliage. Well wash off by syringing with cold, clear water.—J. S. T.

32. *Another Dose for Green Fly.*

An excellent preventive of green fly and similar garden pests is to take 1 bar of "Lifebuoy" carbolic soap and sufficient hot water to dissolve it. When thoroughly dissolved, add sufficient cold water to make 3 to $3\frac{1}{2}$ gall.; then thoroughly spray all affected plants and shrubs. I have found this most effective, and my garden is now free from these pests.—C. S.

33. *More about Green Fly.*

As well as spraying apple-trees, plum-trees, roses, scented geraniums, etc., for aphid (green fly) mix a tablespoonful of guano in a gallon of water and water the plants twice a week. The aphid will simply disappear in the most labour-saving manner! And the plants will be much benefited, thriving in the most satisfactory way.—A. L. N.

34. *Birds and Peas.*

A simple way of keeping birds from eating peas which are just showing above ground is to place over them small boughs with young green on them. I used larch boughs last spring with perfect success.—A. R.

35. *An Efficient Bird Scare.*

Take some empty sewing-cotton reels ; insert in both ends several feathers ; suspend with 18 ins. of thread from centre of reel along an overhead, tight line at yard intervals. These twist and turn and jump in the wind and frighten the birds.—B. G.

36. *Birds and Gooseberries.*

We as a rule have large crops of gooseberries, and attribute our success to the fact that during early spring our gardener ties up each gooseberry bush into a *bunch* with strong string, and thus prevents birds from picking out the green buds as they appear. Thick leather gloves are needed for this job. The string is taken off the bushes when the buds begin to show the green tops. Care must be taken in shaking out the trees, and not to knock the buds off.—B. A. T.

37. *To Protect your Seeds.*

Strands of black thread will protect seed beds from sparrows, but not from the finch family. But if, before putting on the thread, you get a few feathers from a chicken's wing or tail, you will be able to frighten even the finches. Fasten your thread to a stick, so that it will be about a foot from the ground ; then about 4 ft. or 5 ft. along make a noose, slip in a feather, and draw it tight. Continue adding feathers at intervals all along the row, fasten thread to a stick at the end, and then make sure, by propping up the thread if necessary, that all the feathers swing clear of the ground. They will be continually moving, as the slightest wind affects them.—E. A.

38. *Protecting Cabbage against Cutworms.*

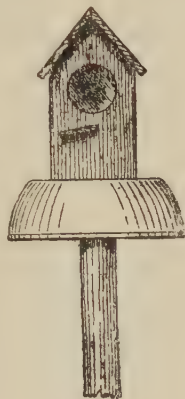
Where cabbages are planted out from a seed-bed and are damaged by cutworms I have found that by slipping a piece of cardboard about 4 ins. to 5 ins. wide, or a thick piece of paper, around the stems of the plants, with a notch so that it fits closely, the plants are well protected from further attack. The cardboard or paper must lie perfectly flat on the soil and a little below the ground level. As the stems increase in size, the paper or cardboard gradually rots away.—T. C.

39. *To protect Seed Beds from Cats.*

In many gardens cats are the cause of considerable trouble. They can be kept away if several small bottles, each containing 1 teaspoonful of liquid ammonia, are buried in the flower beds.—A. B. C.

40. *Keeping Cats Away.*

Cats are very prone to climb up to a nesting box that has been put out for the use of wild birds. A barrier can be formed by nailing an inverted metal bowl in the position shown by the accompanying sketch. A couple of nails should be driven through the floor and bowl into the top of the pole. It is then impossible for the most agile cat to get to the box. The bottom of the bowl affords a convenient place on which to scatter crumbs or other morsels of food.—A. R.



41. *Damage to Young Pea Plants.*

Young pea plants which have just appeared through the soil are subject to leaf-eating pests. Frequently this damage is attributed to birds. When this is the case, pea guards, cotton, etc., serve to ward off the attack. Should the attack continue in spite of pea guards, a close and very careful inspection must be made of the plants and the soil-surface. Such an examination usually reveals the pea weevil. This weevil is only about one-fifth of an inch in length, soil coloured, a night feeder, and, when disturbed, falls to the soil, hence the reason for diligent searching of plants and soil, and also why the attack is usually proclaimed as being due to the ravages of birds. Remedies for the pea weevil are: (a) spraying the young plants with weak arsenate of lead; (b) dusting the plants when moist with hellebore or pyrethrum powder, or a mixture of soot and lime. Avoid sowing in the same place next season.—J. H.

42. *Celery Fly.*

My experience with this pest is that the trouble begins when air is being admitted after the seedlings have been

established in the frames. In spring, instead of dusting the little plants with soot, which is soon washed off when they are watered, I put a teaspoonful of chloride of lime in the front of the frame on a piece of slate, and the result is I have a perfectly clean batch of plants to put out. (The frame must not be closed entirely afterwards.) With dustings of soot occasionally during the season, the whole of my crop is kept practically clean, and I have a good supply of celery throughout the winter and spring.—W. J.

43. *Seed Guards.*

Simple but quite effective seed guards may be made by using willow twigs. These are bent to form a hoop, and the ends stuck in the ground at the ends of the rows. Black cotton may be rapidly passed from one to the other.—H. B.

44. *A Cheap Weed Killer for Paths.*

Nothing makes a garden look so untidy as weedy paths, and yet how often one sees them neglected, mainly because it is a tedious job to keep them clean by the laborious method of weeding. A cheap effective weed killer can be made by mixing a pint of creosote with a gallon of water (preferably hot). Sprinkle it over the paths with a water-can and rose, and it will kill all weeds in less than twenty-four hours. Care should be taken not to allow any of the mixture to touch border plants. A path measuring 3 ft. by 75 ft. can be done in a few minutes at a cost of less than a shilling. Two applications a year will keep paths absolutely free from weeds.—B.

45. *Weeds on Paths.*

I have used an ordinary painter's blowlamp with great success on the weeds in my garden paths. Choose a still day and, if possible, when the ground is dry. It is particularly useful, also, where stones form the edges of flower beds, as the blowlamp burns up all the small weeds and moss that come between.—L. T.

46. *To keep Wasps away from Grapes or Peaches under Glass.*

One of the best and surest methods, and the least trouble, to protect grapes or peaches from the ravages of wasps is

to plant a few tomato plants in pots and place them in the vinery or peach-house. Wasps detest the smell of tomatoes, and if this is done it will be found that the fruit will not be eaten or disfigured by the insects which are such a source of trouble to the gardener.—G. J. J.

47. *Protection against Gnats.*

During the summer months we are likely to suffer from gnat bites. To be wise before the event, not after, is the maxim. A little eucalyptus oil rubbed on the arms or legs will keep off the pests; and white birch oil is similarly effective.—H.

48. *To prevent Midges.*

A small smouldering fire is the best preventive. Get a large baking-tin, have a couple of iron supports soldered on underneath to keep it about 2 ins. off the ground, also a light chain fixed to two sides about 3 ft. long, so that the tin can easily be carried, like a censer. Then when at work in the garden, light a small fire in the tin, throw a handful of weeds on it now and again. This will smoulder beside you, and can easily be carried by the chain from place to place, and all midges and flies kept at bay.—H. M.

49. *Mealy Bug on Vines.*

This pest is by no means easy to eradicate once it has got a good foothold. The best method I have found yet is, after thoroughly cleaning the house with soft soap and paraffin, removing all loose bark from the rods, then wash them with a solution of XL-All Insecticide, double strength, finally painting them over with painter's knotting. This, when dry, forms a thin glaze, starving any insects that may be hidden under the bark. The rods, being shiny, show up any stray insects that may be lurking about in the spring, when they can be touched with a brush dipped in methylated spirit.—F. D.

50. *More about Mealy Bug.*

The grower who has his vines infested with mealy bug during the summer and autumn months is greatly annoyed and troubled to see these pests getting into the bunches of grapes. As the berries begin to colour it is not safe to use

the usual method of eradicating the pest, and many bunches are spoilt by the time they are fit for the table. A method I have adopted with great success is to tie a piece of cotton-wool loosely round the stem of each bunch of grapes. The mealy bug cannot get over or through the wool, which also acts as a trap. About once a week soak the cotton-wool with methylated spirits, which will destroy all the bugs which have become entangled in the wool. The above procedure will help to tide over the trouble until the crop is cleared, when more drastic measures can be taken.—P. E. E.

51. *A Remedy for Coral Spot.*

A very simple and yet effective cure for *Nectria cinnabarina*, better known as the coral spot fungus, on the stem or branch of a tree or shrub is to slice off the infected part with a knife, cleaning off all the bark right into the wood, and then applying a good coating of tar. Should it appear later round the side of the wound already made, slice off again and tar. A plant of *Pterocarya stenoptera*, the stem of which was badly infected with the fungus, was completely cleaned, and the plant grew vigorously afterwards.—D. D.

52. *To keep Lily Ponds Clear of Weeds.*

A little potassium permanganate distributed in the water, and stirred about, will clear it of weeds and help to keep it so.—A.

53. *Chrysanthemums and Earwigs.*

An excellent method which I have found useful in protecting my chrysanthemums from earwigs is by placing a fair-sized flower-pot in an inverted position with paper or straw inside on the top of the stake to which the plant is tied. The plants are then gone round every morning and the pots shaken out into hot water. In hot weather I found this very successful, while in wet weather the earwigs were not so numerous.—J. W.

54. *Dahlias and Earwigs.*

In the summer months earwigs are a real menace to growers of dahlias, chrysanthemums, etc., and to deal with these pests I have found the following treatment to be very effective. First obtain an adhesive gum, such as "Stictite," or anything "tacky." Apply this at base of stems 1 ft. from

ground; then again at various intervals along the stems and branches. When growing for exhibition it is advisable to cut strips of paper and tie loosely, but securely, around the flower stems at about halfway and dress this with the sticky substance. One application will prove sufficient.—W. H. P.

55. *Wasps in Greenhouses.*

It may not be generally known that wasps have a great liking for pitcher plants. Where they are troublesome in a greenhouse, particularly in houses devoted to vines or other fruits, a pitcher plant will trap every one. These plants are easy to grow in any greenhouse. They are most serviceable when grown in a pot that is suspended from the roof by a wire.

R. H.

56. *Eradicating American Blight.*

One of the worst pests of the apple-tree is American blight. I have read of many devices to clear the trees, but I have never come across the one I have often used in Tasmania with great success, and which is procurable in the smallest village—viz., petrol: it is sudden death. Get an ordinary paint-can, put in a small amount of petrol, and with a clean paint brush lightly touch each colony. Mark the place where you start and work round the tree limb by limb, as petrol evaporates so quickly that you cannot see where you have been. It can also be used in autumn time if care is taken not to touch the leaves or young shoots.—R. C.

57. *A Hint for Rock Gardeners.*

All rock gardeners know the tragedy, so common on spring mornings, of finding that some tiny treasure, such as *Wahlenbergia serpyllifolia* or *Dianthus neglectus*, full of blossom-promise the night before, has made a succulent breakfast for a slug. A strip of perforated zinc about 2 ins. wide, with the edge turned outwards, will make a simple but entirely effective safeguard. The zinc should be cut across the holes in order to leave sharp points on the edge, and each strip should be bent into a collar which can be pushed into the soil encircling the plant.—G. H.

58. *A Simple Method of Catching Cockroaches.*

These insects sometimes do very considerable damage in glasshouses by eating off the tender growing points of

various plants. A good method of trapping them is to procure some clean jam-jars of the 1 lb. size (the number required will depend upon the size of the house), and into the bottom of each pour about 1 in. of sweet oil. Place these overnight in suitable positions in the house, and lean two or three pieces of stick against them for the insects to crawl up. Examine the following morning and remove the dead bodies from the oil. The same oil may then be used the following night. After this has been continued for four or five successive nights it will be found that the number of cockroaches caught will begin to decrease. A period of a fortnight may then be allowed to elapse before the traps are set again. This is a surprisingly effective method, and if persisted in an infested house will be quickly cleared of these undesirable creatures. Needless to say it proves equally as efficacious in dwelling-houses or outbuildings.—T. E.

59. *Eradicating Club Root.*

The only effective way of treating ground which is infected with club root is by digging the soil over in early autumn, leaving it in the rough state, and applying a good, heavy dressing of lime. The ground should be allowed to lie fallow during the winter, and the lime allowed to wash in. The following season, no cruciferous crops, such as cabbages, cauliflowers, broccoli, etc., should be grown in this ground, but potatoes may be grown. This is about the only way of getting rid of this troublesome disease.—G.

60. *A Cheap Insecticide.*

A cheap insecticide for practically all sorts of blight and grub in the garden can be made from permanganate of potash. A quarter-pound of the crystals dissolved in boiling water will make a few gallons of solution. This solution can be kept in bottles, and when required for use must be diluted with cold water until it becomes the colour of red wine. I have found this a good insecticide for freeing loganberries from the grub frequently found in the fruit. Apply by lightly dressing the ground with the crystals in the vicinity of the plant in early autumn, or by watering the ground with the diluted solution in the autumn and again in February or March. It is also exceptionally good for spraying roses for grub and rust; also for keeping the celery fly in check.—I. F.

61. *To destroy Nettles, Bindweed, and Groundash.*

A good way to destroy the above is to spread weekly lawn mowings over the ground infested, covering all growth as it appears in this way. The writer successfully destroyed beds of nettles, bindweed, and groundash practically in one season. The bindweed was a mass nearly smothering a plantation of gooseberries. After one season all the weed left was easily forked out. This ground was cleared fifteen years ago, and no bindweed has appeared since. This method also manures the ground to a great extent.—G. J. W.

62. *Sawfly Caterpillars on Gooseberries.*

In the spring sow broad beans at intervals of about 18 ins. to 2 ft. apart between all the gooseberry bushes. I have never yet known this preventive measure to fail.—C. W.

63. *Hints on Chrysanthemums.*

The leaf miner when dry weather sets in spoil many chrysanthemum leaves and are difficult to eradicate when once established. In this case prevention is better than cure, secured by syringing occasionally with "Abol" or quassia and soft soap solution, and picking off and burning all damaged leaves. Whenever aphid is seen, damp the foliage and sprinkle tobacco powder in the tops; it is better to do the whole lot to prevent the pest getting a hold. Earwigs give much trouble in a dry season; these must be caught, and can be trapped by hanging bean or other hollow stalks (I used polygonum stems) by a piece of twine about a foot long, going over the plants twice a week blowing them into a tin of water and paraffin; this solution can be used the whole season; a large batch can be blown out in a few minutes.—W.

64. *Chrysanthemums and Earwigs.*

To all who grow chrysanthemums in pots, staked with canes, and are troubled with earwigs: Get a piece of putty and fill the hole at the top of the cane with the putty, pressing it down with a piece of stick to the depth of $\frac{3}{4}$ in.; this will dry hard in a few days, suffocating the earwigs that are inside the cane and preventing any more from entering, as the canes are a favourite hiding-place for earwigs during the daytime. Then place a piece of broad bean stalk or artichoke stalk, about 5 ins. long, on the soil at the top of

the pot. Go round every morning with a can of boiling water, shaking the earwigs out of the stalk into this.

Earwigs do a lot of damage to the plants, eating the heart and also the buds, often destroying the whole plant.—B. R.

65. *To eradicate Weeds in Paths.*

Mix 1 lb. of sulphur and 1 lb. of lime with 2 galls. of water. Pour this on the weeds, and they will soon be destroyed.

66. *A Cure for Disease in Madonna Lilies.*

F. B.

The appearance in recent years of disease in the bulbs of the lovely madonna lily has robbed many gardens of one of its most charming features. Three or four years ago one of the finest beds I have ever seen was attacked, and ruin seemed imminent. Two years ago, however, it was decided to lift the bulbs at resting-time and transfer them to a garden some distance away. The bulbs were carefully lifted, cleansed of all surrounding soil, and thoroughly dusted with flowers of sulphur before being replanted in their new home. The year following there was growth, but no flowers, but the next year they were finer than ever before, and still give every indication of continuing in robust health.—H. J.

67. *Destroying White Fly.*

Get a bottle of Richards' Liquid Fumigating Compound. Take out half of contents and fill up with good paraffin oil, putting remainder of compound into another bottle. I fumigated house of 5,000 cubic ft. with this mixture. Shake contents to mix thoroughly before putting into fumigator. When using this mixture I find it takes a lamp nearly filled with methylated spirits. Light lamp, and leave house after seeing all ventilators are closed. I was surprised to see the number of white flies dead next morning. I always use this mixture for green fly, and find it acts in the same way. I was fumigating mainly for green fly, when I noticed white fly dead also. This mixture is safe to all plants, and the compound goes twice as far, so is an advantage.—W. B.

68. *A Cure for Woolly Aphis.*

When the summer pruning is finished, this pest is easily seen on any apple-trees subject to an attack. Various remedies have been suggested by fruit-growers, but I have

found none so effectual as the following mixture: Mix two-thirds of paraffin with one-third of creosote, or Stockholm tar, and apply this to the infected parts with an ordinary paint-brush. The young wood should be only lightly brushed, but old wood may be more heavily painted, where the aphis is in crevices. This not only kills the insects, but heals the wounds, and appears to prevent any future attack in the same parts.

F. L.

69. *A Second Cure for Woolly Aphis.*

The following simple way of dealing with woolly aphis on an apple-tree has proved to be very effective. In the lid of a canister punch a number of holes and then pour a small amount of paraffin into the tin. The canister is then suspended from the main stem of the tree affected so that, as the fumes arise, they are carried through the branches. The odour of paraffin seems to be extraordinarily distasteful to woolly aphis, and the insects soon disappear completely. This plan has often cleared a tree of the pest when applications of insecticides have been only partly successful. Now and again the paraffin in the canister should be replenished, although not a large amount will be required.—S. L. B.

70. *Killing Wood Lice.*

This pest is very destructive in cucumber and melon houses. To get rid of it procure some pure liquid ammonia, mix at the rate of $\frac{1}{2}$ pint to 1 quart of water, and sprinkle on the floor of the houses, closing all ventilators. This applies only to houses cleared of all plants. Take care that the fumes do not reach any adjoining structure containing plants, or the latter will die with the wood lice or any other creeping thing that may be underneath the stages.—F. D.

71. *More about Wood Lice.*

Wood lice are very destructive in spring, when glasshouses are being filled with young seedlings and particularly so with tomatoes. An excellent control for this destructive pest is to mix 1 lb. of commercial Paris green with 28 lbs. of dry bran. Broadcast this bait over the whole soil-surface at the rate of about $\frac{1}{2}$ oz. to the square yard; in addition, sprinkle some on the staging, care being taken that it is not deposited on the plants. It is very important to broadcast after damping.

Paris green being poisonous, a glove should always be used when handling the bait, which can be obtained ready made. It is also poisonous to live stock, so great care should be taken when being used in gardens, etc. For this purpose a light dressing of a fine flake pure commercial naphthalene is recommended.—H. B.

72. *For Wasps and Blow Flies.*

A cheap, simple, and effective trap can be made by obtaining some glass jam-jars, preferably 2 lbs. size. Fill these one-third with common ale, adding one dessertspoonful of coarse sugar, then tie white or green butter muslin double over the top of the jars, leaving the strings long enough to tie to a stem-branch or stake. Cut a hole in the top of the muslin about the size of a sixpence, then tie on some part of a tree bearing fruit. The wasps and flies are attracted by the smell of the liquor, go through the hole in the muslin, drink the mixture, become stupefied, and being unable to escape are drowned.—G. W. B.

73. *The Sawfly Pest on Roses.*

My own rose-trees suffered for several years from the sawfly pest, whole shoots and branches gradually dying for no apparent reason until I discovered the cause. The fly lays her eggs on the tips of shoots, the lava hatching out and boring into the shoots, and finally eating a round hole and escaping to pupate underground. After pruning I seal all cut shoots with Stockholm tar, using a short-bristled brush. I have found this remedy unfailing. A hundred trees can be treated for a trifle in a very short time.—S. H.

74. *The Gooseberry Caterpillar.*

One often sees poisonous washes recommended for the gooseberry caterpillar. But how can these be used when fruit is on the tree? An unfailing remedy I have used for years is a mixture of soot and lime, in equal quantities, thrown on the bushes so as to give them a black appearance. The strong ammonia this mixture gives off is fatal to the pest as any survivors fall into the powder that drops off the bushes. In showery, windy weather a second application may be necessary. The gooseberries only require washing before use.

H. W. P.

THE FLOWER GARDEN

75. *Furnishing a Round Flower Bed.*

Three years ago, in a round bed, I planted twenty-five tulip bulbs—Mrs. Moon—and, as a carpet, yellow polyanthus of Dobbie's best strain, and round the edge Sweet Peas Picture, John Ingram, Hawlmark Pink, and Asta Ohn. As soon as the polyanthus have done flowering, I divide and replant them, after stirring up the soil and adding burnt earth. The tulips ripen off naturally and the polyanthus develop into fine plants for next season. When tulips have done blossoming, I support the sweet peas with good sticks, as up to this time small twiggy sticks have been sufficient. By the second week in June sweet peas begin to bloom and continue until the end of September, provided seedpods are picked off, a feast of colour and scent. At the end of September I tidy up the bed and sow sweet peas for next year.

Last spring I had over 200 tulip blooms on the bulbs planted three years ago. This I attribute to the bulbs not having been lifted during that time and ripening off naturally.

76. *To mark out an Oval Bed.*

M. K.

Knock two sticks firmly in the ground, 7 ft. apart. Take a piece of twine 15 ft. long and tie the ends together. Place the loop of the string over the sticks, then with a sharpened stake—placing the point within the loop of string and pressing outwards—move this round to the radius allowed by the taut string, marking the surface of the ground. A perfect oval 8 ft. by $3\frac{1}{2}$ ft. will thus be formed. The length and width of the oval may be varied by adjusting the length of the loop of string and the distance between sticks.—F. V. G.

77. *A Catmint Hint.*

Nepeta Mussini "Catmint" often dies off in the early spring, as the young tender shoots are injured by frost. But if it is not cut back in the autumn (when so much unnecessary tidying is done), the old stalks form a protection to the young growth, and they will come up safely and make strong plants. At the end of March the plants can be trimmed up.—K. W.

78. *To grow Big Wallflowers.*

The wallflowers that produce the greatest masses of colour are those that make strong bushy plants with 4 or 5 shoots by the end of October.

To grow them proceed thus: Sow seeds of good self-coloured varieties by the end of May in wide, shallow trenches drawn with a 6-in. hoe in an open space in the garden. At the middle of July transplant the seedlings to a piece of ground that has carried an early crop, such as peas. Clean the ground with a hoe, but do not dig it, for hard ground is necessary to induce dwarf, bushy growth.

Make the holes with an iron bar at a foot apart, insert the plant, fill the hole with water, and firm the soil around the plant with the dibber. This method will produce hard, bushy plants that will stand the winter and give a mass of colour next April.

Plants from hard ground often lift without soil to the roots, but wallflowers transplant safely without soil.—J. B.

79. *A Protection for Wallflowers in Winter.*

Many of my friends' wallflowers suffered very badly one winter from the severe frosts we had, but I found the following gave mine good protection: After the leaves had fallen from the trees round about and blown in amongst them, I allowed these to stay until the early spring, when they were easily and soon gathered up. They not only gave protection from the frost, but helped to bear the weight of the snow, which very often breaks the wallflowers, and I had an exceptionally good show.—W. S.

80. *Home-saved Seeds.*

Home-saved seeds are quite successful if proper care is taken and fresh seed obtained at least every three years. Seed should only be saved from strong, healthy plants. The following is a method I have found to serve well both for flower and vegetable seeds: Keep an open eye for fine well-formed vegetables and flower blooms. As soon as you see these mark them with a little piece of red ribbon tied in a conspicuous place. When the seed-pods form it is best to pull some off, leaving about three or four to mature. When they are ripe and dry (on no account pick while wet, as mildew will be prevalent) pick them off and rub over a piece of white paper. Be

careful to deal with one kind of seed at a time. To finish off, packet the seeds, and name clearly in ink.—C. W.

81. *Success with Gilia coronopifolia.*

This is a plant that attracts attention in the herbaceous border, but which is very seldom seen. I found it very difficult to flower at one time, treated as an annual. Of late years I have taken to growing it in pots until the flower spikes are well advanced, and then plunged in the border without any disturbance. A light soil and plenty of drainage is essential for this plant. Sown in heat in early spring, grown on and finally potted in 6-in. pots, and planted out in July, it will flower in late summer.—F. W. D.

82. *Seed Sowing.*

When sowing very small seeds, put them into a pepper-pot and sprinkle on the soil. For larger seeds use a flour dredger. The seed is more evenly distributed in this way than when sprinkled by the hand, and the method is especially useful when sowing in pots or boxes for frames or greenhouse.—H.

83. *Protection of Early Sweet Peas.*

For early blooms most people advise autumn sowing of sweet peas in boxes, which are placed in frames, and then transplanting in February. To eliminate the labour of transplanting sow in the *open* in September or October. Place twiggy branches on the soil and cover lightly with bracken. By January 1 the seedlings are usually 3 ins. high, and while the bracken affords protection from frost and sparrows, it allows light to reach the plants, and etiolation is prevented. I find that the more natural the condition, the better are my peas. They are never frosted, and are always among the earliest, although grown on a heavy, *clay* loam in Surrey.—J.

84. *For Sweet Pea Exhibitors.*

Tying up "cordon" grown sweet pea plants occupies fully half the total time devoted to all phases of exhibition culture, and many growers would, perhaps, welcome a method which would enable this work to be accomplished at least three times as quickly. I refer to the use of galvanised split wire rings. These rings are about 1 in. in diameter and made of pliable wire, and their adjustment is very simple. Open the ring with the fingers into the shape of a capital C, it can

then be closed round the haulm and support just above a leaf axil. Do not close the ring tightly, but allow sufficient room for the further expansion of the haulm. Practice will enable this simple operation to be done very rapidly, and the fastening is just as effective as a raffia tie. The rings are inexpensive, and are stocked by most seedsmen. They can be removed at the end of the season and used year after year.—G. M.

85. *Staking Sweet Peas.*

The following method of staking clumps of sweet peas is worthy of a trial: When sowing or planting the seedlings, place them around the outside of an 18-in. or 2-ft. circle. Then place the sticks in the *inside*—always using a few small twigs outside, to give the seedlings a start in their climbing. If wire netting is used, adopt the same method of putting the netting and supports *inside* with the peas outside. Throughout the season the plants will be covering the supports, enhancing their appearance, and the flowers do not get damaged by being blown across the twigs. An occasional tie right round with raffia helps to keep them together. Half the usual number of sticks will be sufficient.—F. B.

86. *Preparing the Ground for Sweet Peas.*

I am invariably congratulated on my show of sweet peas, both for size and quantity. During October I dig a trench at least 3 ft. deep and fill with vegetable refuse—potato peelings, cabbage and lettuce leaves, fruit skins, etc. Occasionally cover with a small quantity of soil, and when 12 ins. from the top fill in with fine light soil. The result will amply repay for the extra trouble involved.—R. B.

87. *When striking Cuttings.*

Success in striking cuttings in the garden is greatly assisted if a clean glass jam-jar is placed over them and allowed to remain until it is seen that growth has taken place. A further advantage is that the cuttings may be inserted in the position in which they are intended to grow without transplanting.—G.

88. *Autumn Sowing of Sweet Peas.*

The autumn sowing of sweet peas is a matter of vital importance to exhibitors and others who desire first-class blooms early and it invariably results in the choicest flowers

being ready in good time. Where cold-frame culture is favoured, and it is generally advisable, the seeds are usually sown in pots or boxes. Being short of small pots, I have adopted the following method with good results: Procure some good loamy turves and lay them in the frame, cutting them to fit close together. They should then be cut into squares of about 3 ins. and two seeds sown or planted in each square of turf. When planting-out time comes in the spring the squares of turf can be taken out separately, thus doing away with the risk of damaging the roots through digging them up out of a solid bed or box.—H. A. H.

89. *Sweet Peas in Seakale Pots.*

Lovers of sweet peas whose gardens are very tiny are advised to try growing their peas in seakale pots or tubs. These pots can be stood on the lawn or path or front door-steps, thus saving space in the flower-beds. The pots should be filled with the grower's pet compost up to about 3 ins. or 4 ins. from the top. Sheets of glass can then be used to protect the young plants, thus making autumn or very early spring sowing quite safe. I have followed this plan for several years, and have had excellent results. Plants grown this way bloom three or four weeks ahead of those sown in the open ground in March or April, so that those who can afford space in their beds also will find this plan useful for prolonging the season.—K. B.

90. *Preserving Begonias.*

When the garden beds are cleared for the winter many people who do not possess even an unheated greenhouse throw away the begonia tubers under the impression that they cannot be kept and grown again the following year without the aid of glass. This is a mistaken idea.

Take the tubers up as soon as the frost affects the leaves, leaving them in a dry, sunny place until the succulent stalks have died off. Put them away, after removing all adhering soil, in a damp-free place until January. They may then be put in a box full of bulb fibre and *placed on the kitchen rack* every night and, if possible, near a sunny window during the day. They will show growths very quickly, and will be quite happy until they are large enough to be potted in April and planted out at the beginning of June. Treated in this way they may be kept for years.—G. H.

91. *A Carnation Hint.*

To prevent carnation flowers from bursting, place a rubber ring over the buds about one-third of the distance from the base as soon as they have attained full size. By this method shapely and compact blooms are secured.—R. W. B.

92. *Coltness Gem and Other Choice Dahlias from Cuttings.*

Cut old stem of tuber about an inch from crown, place tuber on 2 ins. of leaf-mould, partly pressing them into it; have them on hotbed, as bottom heat is essential both for starting tubers and rooting cuttings. When shoots are from $2\frac{1}{2}$ ins. to 3 ins. long is the best time to take the cuttings. Sever the shoots as near the crown as possible, taking care to leave a small piece on crown, where others will start from. Cuttings this length are solid through; longer ones are often hollow and are useless. Compost for cuttings: 2 parts moss litter (passed through $\frac{1}{4}$ -in. sieve), 1 part silver sand, and layer of sand on top. Insert cuttings firmly, give a good watering, and *do not* cover with glass. Pot on, when rooted, into $3\frac{1}{2}$ -in. pots. Fifteen plants per tuber is a small average by above method. All dahlias can be treated likewise.—G. McG.

93. *Lifting and Storing Dahlia Roots.*

It has long been recognised that dahlia roots keep much better, and suffer less from withering, if dug when the soil is wet, leaving the soil on the tubers to dry. The following method gives excellent results without any wet weather digging: Procure some soil which is mostly clay, and mix it with water to make a moderately thick mud. Dip the tubers in this immediately after digging; then dry them thoroughly and store in dry sand in a frost-proof room.—G. G.

94. *How to protect Delphiniums, Scabiosa Caucasica, and Pyrethrums from Slugs.*

These charming herbaceous plants are easily grown, but during the dormant season slugs will travel miles to devour the young growths just below the surface. I have found the following method quite a success. Secure a basket of air *slaked* lime, and place a good handful over the crown of each plant, a mere sprinkling is useless. There is no need to be afraid, the top of the plant will be covered with lime; in fact,

large roots may require two handfuls. In the spring, clean, fresh, healthy young growths, especially the delphiniums, will push up through the lime and flower freely. Remember, the lime must be air slaked, not fresh lime in lumps. Thousands of the above plants are destroyed annually by slugs. Here's a remedy, now go ahead.—T. B.

95. *Increasing Choice Delphiniums.*

Many amateurs are unaware that the best way to increase delphiniums is not by division, but by cuttings. These should be taken when the new shoots have made a growth of about 4 ins. Fill a cold frame to a depth of about 6 ins. with a compost of sifted loam 2 parts, leaf-soil 1 part, and sand 1 part. Firm down, leaving about 6 ins. of head room at front. Sever the cutting near the stock and plant 2 ins. deep, first dropping a little sand in the hole. Water well and shut up close for a fortnight. They will soon root, and may be allowed to flower, but not to seed. Transplant the following spring.—J. H.

96. *Protecting Delphiniums.*

When the plants have died down and the dead stalks have been removed, build a pyramid of fine ashes above each root. This will serve as a protection against frost, and no slugs will venture near to attack the young shoots in spring.—C. P.

97. *Bulbs in the Rock Garden.*

Miniature daffodils and other bulbous plants growing in the rock garden are apt to get badly splashed by the heavy spring rains, with the result that their delicate beauty is entirely spoilt. The best means of protecting them is by carpeting the ground with some low-growing evergreen plant, which will prevent the mud splashing upwards. Naturally, the plants we choose must not be too vigorous in growth, or they will rob the bulbs of their proper nourishment. Members of the thyme family are very useful for carpeting purposes, including *TT. azoricus*, *citriodorus*, *ericæfolius*, and *Serpyllum* and its varieties. Other good plants to use are *arenaria*, *saxifrages* in variety, especially the mossy sorts, and the dwarfer evergreen sedums. Most of the plants mentioned above are flowering sorts, so they will provide colour in the rock garden when the bulbs are over; while some of the thymes have beautifully variegated silver or golden foliage.—B. D. S.

98. *To succeed with Dianthus neglectus.*

Of all the rock pinks *Dianthus neglectus*, with its warm pink front and buff back, is one of the most beautiful. One of the most satisfactory also, for it is free from the habit of dying! Its even more beautiful relation, *Dianthus alpinus*, makes a practice of withering away for no apparent cause when it seems to be thoroughly established. Ten years ago I planted *Dianthus neglectus* in moraine mixture. The plant remained much the same size and produced each year about seven blossoms. Last September I transplanted it into a mixture of ordinary garden soil, leaf-mould from an old shrubbery, and a little sand, to which I added a dessert-spoonful of burnt rubbish. The plant is now fully double the size it was in September, and has produced eighty-one perfect flowers! They all opened at practically the same time, so that the foliage was completely hidden by a solid pink covering. I have had nothing more beautiful in my rock garden, and intend this autumn to try the same treatment for *Dianthus alpinus*.—H.

99. *A Good Flower Effect.*

I saw two uses of flowers in a West Country town lately which I thought were well worth imitation.

The first was a nasturtium wall. The garden of a small house was bounded on one side by an unsightly bare wall quite 12 ft. high. It had been wired all over and planted with nasturtiums, alternately scarlet and cream. The plants had covered the entire surface of the wall up to the coping. They were flowering in such profusion that they formed a dazzling mass which, when lighted up by the sunshine, almost defied description. There was an invariable exclamation of astonishment and admiration from passers-by on the road when they came suddenly within sight of its glory. As the nasturtium has a long flowering season it will be some time before the beauty of that wall is over.

100. *And Another.*

The second was a clematis porch. It belonged to a large old house dating back to far-away centuries, and was built of grey stone. Clematis in four different colours had been planted on each side of the porch. The red, white, pale lavender and vivid purple had been allowed to mix freely. They were all in full blossom, and the effect of the mixed colours against the cool grey background of the old house was charming.—H. G.

101. *Protecting Small Rock Plants in Winter.*

Take a piece of thick but pliable wire. Twist it into the shape of the letter M, making the ends long enough to be pushed into the ground about a foot. Manipulate a small pane of glass over and under the strands of wire and place table-wise over the plant. This keeps off all rain and snow, to the benefit of the plant.—M. C. M.

102. *Protecting Seedlings from Frost.*

Seedlings planted out in early spring are often damaged by late frost. I protect my young plants by placing a large glass jam-jar over the top of the plant, first knocking out the bottom of the jar.—B. W.

103. *Economical Stakes.*

The stems of cut-down delphiniums and other firm-stalked plants make splendid supports for later flowering subjects. They can be cut to the required length, and will retain their firmness so long as they are in the ground.—D. E. R.

104. *Transplanting Seedlings in Dry Weather.*

The following is a method I adopted when compelled to transplant some seedlings whose roots could no longer find accommodation in the seed boxes, at a time when the ground was dry and cracked and the sun was hot. First of all I poured a bucketful of water on the patch of ground selected. It disappeared immediately, but enabled me to work the soil. Then I poured on another bucketful of water and very gently but firmly planted the seedlings. These I covered with finely cut coconut fibre refuse, gently shaken over. Seedlings transplanted without this covering died, the covered ones survived.

105. *A Good Liquid Manure for Flower Beds.* ^{C.}

A good liquid manure for use when flowers are coming into bud, and when in bloom, can be made as follows: In a tub (say, 36 gallons) place 3 bucketfuls of cow manure, a half-bucketful of freshly gathered fowl droppings, and 1 bucketful of soot. The droppings and soot should be enclosed in a small sack or wrapped in rough sacking. Add 2 lbs. of sulphate of ammonia and fill up with rain-water. Leave for three weeks; stir frequently. For use, dilute with water until the liquid is the colour of weak tea.—S. W.

106. *Watering Plants on a Bank.*

It is sometimes a difficult matter to water rose-trees or plants growing on a bank. The water runs down the surface, and very little sinks into the ground. To overcome the trouble, dig a hole in the ground above the stem of the plant large enough to sink a small flower-pot up to the rim. Into this the water can be poured, and a great deal more will reach the roots than would otherwise be possible.—F.

107. *Seed Sowing.*

I find that a simple method of sowing small seeds thinly and evenly is to use an ordinary matchbox. Cut a tiny V-shaped wedge out of the centre of one side of the lid, put in a small quantity of seed mixed with fine silver sand, shake the box lightly, and the seeds will come through in such a way that they can be easily distributed without undue crowding. By slightly pushing the lid open, larger seeds can be sown.—B.

108. *Quick Raising of Polyanthus Seed.*

There is much less risk of losing a proportion of polyanthus seed, especially the best colours, which germinate even more slowly than the common and stronger-growing colours, if the following method is adopted. In my experience it has given a high percentage of germination in a few weeks. Sow almost in pure sand in a pan or tin perforated at the bottom. Stand in a saucer which allows of a depth of about $\frac{1}{4}$ in. of water, cover with glass, and place in the shady corner of a frame. Keep the water container well supplied so that the sand is always saturated.—S. W.

109. *Increasing Polyanthus Plants.*

Take up your large polyanthus plants when they have finished flowering. Dig a long, shallow trench, heel in the plants at the side of the trench at such an angle that the flower heads lean over the trench. When the seeds are ripe they will fall into the trench and new plants will spring up. Plant out in required position in early autumn ready for flowering the following spring.—M. C.

110. *A Good Way of Propagating Violas.*

Those who want to increase from their own plants and do not possess a frame in which to take autumn cuttings, and

who dislike the straggly plants that result from dividing up a plant, will find the following a simple and good plan. Take up the plants in July from which you wish to propagate, plant them in a reserve border, and cut them back hard. Then earth up the soil on each side till they are nearly covered, and as the young shoots grow up through the soil a further earthing can be given. Dig up the plants in September and you will find each consists of a number of strong young-rooted plantlets which can be separated and planted out, and which make compact-growing plants.—V. W.

III. *An Easy Way to Increase Violas.*

Those who are too busy to take viola cuttings will find the following an easy way of increasing violas: Mould up the centre of an old plant with a mixture of half leaf-mould and sand. In about a month most of the growths will have rooted in the compost. The whole plant can then be dug up and easily divided and replanted. Although September is the best month for this, it can be done any time during the autumn, leaving the replanting until March.—R. M.

II2. *Violas for Late Bloom.*

When planting out violas grown from cuttings which have been growing in boxes in cold frames, take cuttings where possible from these, plant the cuttings in boxes of soil and put back again into the cold frame. It will be found in a few weeks' time that these will have made good rooted plants and, planted out, will make a fine show of bloom during the late summer and autumn. Where one wishes to increase his stock of violas, this will be found an excellent method.—J. H.

II3. *When planting Flower Beds.*

When pricking out seedlings, or planting out a flower-bed, try using a board for your straight line, instead of the customary string. It will be found less troublesome to move about, and is also useful to stand on, eliminating the treading down of the soil between the rows.—U. H.

II4. *Propagation of Alpine Plants.*

To strike cuttings of alpine quickly and safely prepare a small frame or bell-glasses with sand and leaf-mould. Keep

the cuttings closely covered in *full sun*, water once or twice daily, and in three weeks or less the cuttings will have rooted, and ought to be uncovered and fully exposed. Few failures result from this treatment.—N. S. C.

115. *Propagation of Phlox subulata and Aubrietias.*

The propagation of *Phlox subulata* and its varieties present some difficulties to many cultivators, owing to the hardness of cuttings taken from outside plants. When these choice alpine have finished flowering they should be cut back and a few plants lifted carefully, potted up, and placed in gentle warmth. Plenty of growths suitable for cuttings are produced. Take them off when quite small—an inch long is sufficient, and dibble them in round the edges of small pots filled firm with a mixture of loam, leaf-soil, and sand in equal parts. Place the pots in a box covered with a sheet of glass, where they will root quickly, when they should be placed in a cold frame. The same method applies to the aubrietias.—J. N.

116. *An Outside Shelf for Sun-baking Plants.*

Azaleas, after flowering, require all the sun possible to ripen wood for next year's flowering. Against a wall facing south two stout pieces of wood are rammed into the soil and another broad piece nailed on the top of these pieces to form a shelf. Other pieces of wood can be nailed to this shelf to form a lip all round to hold leaf-mould and moss, into which the pots are plunged. This latter keeps the pots moist and minimises the need for watering. Often azalea pots are plunged into garden soil, but this is unwise, as a fair quantity of lime is in this soil and azaleas dislike it. Not only can this shelf be used for azaleas, but for pelargoniums after flowering, and many other plants and bulbs. This shelf is better than putting plants simply on ground, because often other things which are growing shade them. This shelf is useful in a small garden where there is not much room.—G.

117. *Seed Sowing in Dry Weather.*

Not a week passes in early summer without some kind of seeds requiring to be sown, and as they are more liable to fail from heat and drought than they were in the spring from the cold, attention should be given to prevent this. In all cases

open drills for the seed. Fill them with water at once and again in two or three hours' time, soaking the ground well before sowing; then sow and cover at once with dry soil. It is astonishing how long this dry covering will retain the moisture, and the seed will germinate and the plants grow freely.—J. P.

118. *Growing Tall Nasturtiums.*

Where room permits a most effective display of tall nasturtiums is obtained by sowing the seeds along the four sides of a large square, or on the circumference of a circle. Pea sticks, sufficiently supple, are then placed within the sown lines, interlaced and bent inwards so as to form a dome. The vines climbing this support soon become a mass of foliage and flowers, which completely hide the sticks. This idea occurred to me when needing to deal quickly with an ugly piece of waste ground. The result was so satisfying that since then I always grow nasturtiums in this way.—C. M.

119. *Summer Treatment of Ericas.*

I have a bed of fifteen varieties of heaths doing very successfully in a rather exposed garden on dry sandy soil in summer, with cold frosts in winter. In early spring seedling (tall) larkspurs are inter-planted among them, which, while allowing early bloomers to be seen to advantage, provide, later, necessary shade from hot summer sun and winds, when such shelter is necessary—the annuals then being beautiful with bloom. The heaths put on new wood apace and occasional waterings with rain-water keep both plants happy on the light soil. As autumn advances and more exposure is needed, the spent annuals are pulled out, exposing to view later flowering heaths. Sufficient protection from winter frosts is given by some light scrub and scrim. This treatment allows of a large number of varieties to grow in an otherwise impossible locality.—M. E. P.

120. *A Flower Support.*

A good support for peonies, poppies, and other plants given to falling on the ground can be made as follows: Make a circle of wire, and to this fasten three pieces of wood as legs, sharpened at one end. Place this over the plant, which will push through it and hide it. The size of the legs and the length of the legs will depend on the plant.—T.

121. *An Easy Way of Rooting Cuttings.*

To receive a few cuttings of a choice plant, and find, on reaching home, no suitable place in which to root them, is a common occurrence. Bell-glasses, though good, are expensive, and easily broken. A good substitute is to use a 6-in. pot, invert a large piece of crock over the hole, and fill it half full or more with sand, allowing the space required by the size of the cuttings; insert the latter, water in, and cover with a piece of clear glass. Place the pot outside under a low wall, in a frame or greenhouse, according to the temperature required. Afford all light possible, without direct sunlight, and water enough to keep the cuttings fresh. When rooted, ventilate gradually, until the glass can be dispensed with. Difficult subjects, heaths, etc., can be rooted in this manner.

122. *Dividing Flag Irises.*

C.

For those who purchased plants early in the year or the autumn before, and whose garden expenditure is limited, and who wish to increase their stock of, say, two dozen varieties, the following method which I have successfully followed is a good one. By this way an iris garden can quickly be filled. Dig up the clumps and cut off all the clean, new shoots with an old kitchen knife, taking about 2 ins. of rhizome for each new plant. Plant firmly in new positions, clipping off about 4 ins. of the "grass" with a pair of sharp scissors. Plant the old clumps in an odd corner. Next year they will send up a large number of fresh shoots. These can be treated in the same way as this year's growth, so that by the third year after purchasing the plants, the iris garden will be well filled, and in May and June it should be a mass of bloom.—M. H.

123. *Raising Anemone Coronaria from Seed.*

Mix the seed well in moist sifted soil, put in pots, and lightly press down. Directly germination takes place, sow thinly in pans or boxes of soil free from worms—the coarse soil in the bottom of the pan—place some old sacking on this, then some fine soil, sow on this, and press lightly with the hand. Keep moist. Directly they come up sprinkle with fine soil lightly. The sacking makes a perfect drainage. The seed germinates in about three weeks. I have been very successful with the above method. Transplant carefully in open ground when large enough to handle.—J. H. A.

124. *Economising Space in a Small Garden.*

In a garden where space is limited and it is desired to grow spring flowers (such as daffodils or narcissi, which can be left in the ground), I find it a good plan to plant the bulbs in clumps, marking the position with labels or sticks, so that the surrounding ground may be dug without disturbing them. In the spring, sweet peas or other tall-growing annuals, such as lavatera, can then be sown in circles outside the bulbs. If the annuals require staking before the spring flowers are over, short twigs will provide temporary support, the pea-sticks being put in position later. The unsightly appearance of the dying foliage will thus be hidden.—C. W.

125. *A Cheap Fertiliser.*

Since animal manures have become so scarce and costly, I have had quite wonderful success by following this plan: Whenever a section of the garden becomes vacant—after potatoes, shallots, peas, or tomatoes—I at once seed it down in rape or red clover. Using these alternately and the growth is dug in when about a foot high. On one spot (unfenced), where I must grow potatoes or nothing, by keeping to this practice, potatoes have been grown for fifteen consecutive years, and the crop is still good and clean. It sometimes happens that by taking up potatoes early in August, it is possible to get two crops of green manure turned in before winter stops the growth.—H. R.

126. *Transplanting Madonna Lilies.*

Unless it is imperative to remove clumps of bulbs of madonna lilies (*Lilium candidum*), they are best left alone, especially if they are doing well; but if they must be shifted, transplanting should take place immediately after the flowering stalks have died down, and before the new growth has advanced. Too often removal of the bulbs is put off late in autumn, when new growth is in evidence, and it is seldom they take kindly to a late shift. But if a clump is giving satisfaction and yielding its pure white blossom every season, I strongly recommend its being left undisturbed.—D.

127. *Taking Cuttings of Soft-wooded Plants.*

When taking cuttings of various soft-wooded plants one of the things to avoid is the bruising of the stem of the cutting by making it with a blunt knife.

For making a good, clean cut I have found nothing to equal a disused safety-razor blade.

Being thinner and sharper than the ordinary pocket-knife, it does not require as much pressure in making the cutting, and consequently minimises the risk of bruising the stem.

With a little ingenuity a handle can be made to take the blade, or with some types of razor the ordinary razor handle could be adapted to answer the purpose quite well.—H. A. H.

128. *Propagating Lemon-scented Verbena.*

Many people find this difficult to strike from cuttings. It can easily be done in spring, the main object being to keep the cuttings from flagging. Another way, which, perhaps, is easier for the amateur, is by layering in early autumn. Select half-ripened shoots, make a tongue by cutting through a joint in the same way as you would a carnation, using some leaf-soil and sand to keep the tongue open. Lift in spring when growth commences.—E. D.

129. *Plants for a North Wall.*

I would like to draw attention to the merits of *Cotoneaster horizontalis*, *Clematis Jackmanii*, and the common honeysuckle for growing on walls facing north. They have proved wonderfully effective with me, situated by the side entrance to the house. The cotoneaster heads the procession of bloom, followed by the honeysuckle trained over the doorway; the clematis, planted near the base of the cotoneaster, through which it has threaded its way to the top, being the last to open its blossoms. Even during late summer both it and the honeysuckle will still be blooming—the latter, naturally, somewhat sparsely—while the cotoneaster will be laden with brilliant berries. Thus, a striking and lasting display is provided in a position which, from the horticultural standpoint, is commonly devoid of interest.—C. C.

130. *Double Arabis for Spring Bedding.*

This most useful plant is generally associated with rockeries, but is also most valuable for a groundwork in any

scheme of spring bedding. A good display may be obtained in the following manner: At bedding-time, in early October, secure good, strong cuttings and prepare in the usual way, planting three or four in a bunch in the prepared flower-beds. These root readily, and in spring will produce fine sprays of blooms resembling miniature stocks. This is a great saving of labour, thus obviating the necessity of preparing plants as is usual with such subjects as aubrietia, etc. Double arabis interspersed with tulip "Pink Beauty" forms a pleasing and effective combination.—C. N.

131. *To keep Echeverias during the Winter.*

I find the following a very simple and efficient method of keeping these attractive and useful edging plants during the winter.

In a sheltered position of the garden, preferably against a fence, bank up the soil several inches above the surrounding soil. Plant the echeverias, as closely as possible, in this raised portion and then prop pieces of glass, a few inches above them, on bits of firewood driven into the soil around and between the plants. Smaller pieces of glass should be placed round the sides, but not to exclude too much air. Stones will keep the glass in position during windy weather. I prefer this method, as one can practically forget the plants all the winter, whereas cold frames require attention. I find my echeverias come into bloom weeks before it is safe to plant out, and I very rarely lose any.—E. B.

132. *Winter Treatment of Scabiosa Caucasica and Lobelia cardinalis.*

Before winter sets in it is advisable to give *Scabiosa caucasica* a little protection around the roots, such as leaf-soil or old bulb fibre. To keep off slugs place a little powdered charcoal or coarse silver sand direct on the crowns. This has been found very effective with choice delphiniums, also rock plants. The roots of *Lobelia cardinalis* are apt to rot during the winter if not carefully attended to. Pots or pans are better than boxes to store them in, as wood keeps wet and very often a fungoid disease sets in. Place close together in clean leaf-soil and silver sand, and keep in frame or cold greenhouse, but as soon as the stem begins to decay, which

is generally towards the end of November, I prefer to put them on a shelf in a slightly heated structure, so that the stem is kept dry, which can be removed as soon as it will part readily from the roots. Very little water is required, just enough to prevent shrivelling.—F. D.

133. *Seedlings of Meconopsis Wallichii.*

Meconopsis Wallichii, the tall blue Himalayan poppy, is so beautiful that any gardener who has seen a good specimen in flower can never rest contented until he has made a determined effort to flower it in his own garden. This meconopsis, like other members of the family, comes readily from seed, but is by no means easy to grow on successfully to maturity. In some districts it does not stand the winter well. The following hints may be of value: Choose a site sheltered and shaded by shrubs; make the drainage sufficient beneath a compost at least 18 ins. deep, made up of coarse grit, leaf-mould, and peat; top-dress the seedlings with leaf-soil before frosts set in, being careful not to smother the crowns of the plants.—S. H. H.

134. *Propagation of Double Gypsophila.*

Amateurs may strike this plant from cuttings if the right sort of cuttings are taken. This is important. It is practically impossible to root tops of the main shoots, but laterals from them, which are freely produced, take root fairly easily under conditions similar to those given to perpetual carnations—viz., inserted in spring in sandy soil with mild bottom heat.

A. J. C.

135. *How to sow Shirley Poppies.*

When sowing seeds of Shirley poppies and other annuals that are difficult to transplant, it is a good plan to space the ground as follows: Lines are scored on the soil, so that the surface is cut up into large squares; where the lines intersect, a pinch of seed is sown, and the resultant seedlings thinned out till one strong plant is left at each point of intersection. In this way the plants will be perfectly spaced without any trouble of transplanting. For poppies, the lines should be drawn about 1 ft. apart; while, of course, for other annuals the distance apart will vary according to the variety concerned. Another advantage of this method of sowing is that

the ground may be hoed and otherwise cultivated in a way that is impossible if the seeds are sown broadcast, with the result that the seedlings will be correspondingly more vigorous and healthy.—B. D.

136. *Background for Herbaceous Borders.*

I have tried many ways of forming a background to the flower borders, and the best and prettiest is to drive some stakes—say, about every 4 yds.—along the back of the border and tie some garden wire right along at about a foot apart. The taller the stakes the better. After completing this, sow seeds of *Tropæolum canariense* and *T. Lobbianum* alternately 4 ins. apart. *Convolvulus major* is also a fine climber for this sort of work, and will mix well with tropæolum. Seeds sown in the middle of March in good loamy soil will be a wonderful sight in the summer, and will completely cover the stakes and wire.—E. W.

137. *Protecting Primulas and other Alpines.*

An effective and not unsightly way to protect early-flowering primulas and other alpines is to plant above them a companion, which makes vigorous growth in the autumn and needs to be cut back in the spring. I have a bush of santolina spreading umbrella-wise over *Primulas denticulata* and *rosea*, and under its protection from frost and damp they are full of healthy buds. The santolina will be cut back hard later.

A. W.

138. *A Novel Method of Staking Perennials.*

Before growth begins, lay a piece of wire netting of the same size on top of the clump. A month later fix a stake, about 6 ins. shorter than the plants grow in height, firmly right in centre of clump. As the stalks force their way upwards through the openings "wriggle" up the wire netting part way. The branches and leaves prevent it from slipping back. Repeat from time to time until the wire is about three-parts of the way up the full growth. The centre stick prevents the plants being blown sideways by the wind, and all the flowers are beautifully spaced by the wire openings. Neither heavy rain nor wind will destroy the regular and natural appearance of the plants.—J. T. M.

139. *Michaelmas Daisies.*

If growers of Michaelmas daisies in clumps will stop the front growths when about 9 ins. high, and those next behind at about 18 ins. high, leaving the back growths, they will obtain clumps flowering from base to top, instead of only on top.—S.

140. *A Most Artistic and Cheap Method of Staking Flowers.*

There is no doubt that in staking perennials, the most satisfactory way is to use a strong but slender stake for every flower-spike. To get the best stakes for this purpose without cost take in the autumn the strongest stalks of your hardy perennials, such as asters, rudbeckias, golden rods, and heleniums, and strip the leaves off, using any thick rag in running the stalks quickly through the hand in order not to hurt it. Thereafter dry the stalks off and keep them in a dry place during the winter. They are ideal in their slender sturdiness, giving the flower-spikes sufficient protection against storms and allowing them to sway with the wind instead of being snapped off, as too often occurs when less flexible stakes or canes are used. Lastly, they have the advantage that they are scarcely to be seen, as are other staking materials, even with contrasting backgrounds. Thus, the plants do not appear to be staked, but seem to grow quite naturally.—M. W.

141. *The Propagation of Anchusa italica.*

In some soils this invaluable border plant must be treated as a biennial, for very frequently after the second season of flowering it has exhausted itself, and where the true good types of the Dropmore, Opal, and other fine varieties are desired, resort must be had to cuttings, and autumn is the time of the year to perform this operation. Take up one or two strong specimens of the current year's stock with all the roots intact—if any break off while lifting fork them out—now cut off all the small fleshy roots from the main rootstock. The old plant may be replanted at once or laid in the soil until required. The small, fleshy roots that were severed from the old plant should now be cut into 2-in. lengths, keeping all of them one way up—square cut at top and slanting at the bottom—tie them in bundles of ten, and lay them in a heap of sand in the open until spring, when, on examination, it

will be seen all the crowns will be showing young shoots. Let them grow until green and hard enough to stand transplanting, when they may be put straight into their flowering quarters, where they will make fine sturdy plants for the following season. This method has been practised successfully for years.—F. B.

142. *A Good Way to sow Annuals.*

Some annuals cannot satisfactorily be transplanted, and the following method of sowing will be found helpful. After the bed has been prepared, take some sand and lay a handful of it on the ground at stated intervals, according to the size of the annual. For instance, for a plant of high growth like *Lavatera Loveliness*, the patches of sand should be quite a yard apart. When the ground is fully marked out with white patches, dibble four or five seeds into each patch, one line after another. This method is infinitely more economical of seed than the usual way of sowing in drills or broadcasting, and has the additional advantage that, if the seed is slow in germinating, the ground can be hoed between the patches, which can easily be seen.—R. H.

143. *A Serviceable Hoe.*

I used to find when using a hoe in the flower border that occasionally some young plant or more often a sprouting bulb was sadly mutilated or even cut off by the sharp blade. I have now dispensed with the ordinary Dutch hoe to a certain extent, and have made a very serviceable tool, which has all the advantages of the hoe and none of its disadvantages, by taking the handle off an ordinary gardening trowel and fixing the spike of the trowel into a long handle. The spoon shape of the blade enables me to get between all the closest-growing plants and bulbs without fear of an accident, using it in the same manner as the Dutch hoe.—B. H.

144. *Kniphofias : Preventing Crowns Decaying.*

One of the surprises to those growing kniphofias—for the first time possibly—is that, although reputed to be quite hardy, they sometimes die off by the spring. This is not altogether the experience of the tyro, either, for even with "old hands" failure occurs now and again. Not infrequently the cause is decay of crowns in consequence of the plants being left to themselves, and snow and wet reaching the centres they

rot off. A remedy, which is very simple, is to place three stout stakes to each plant, tying up some of the long leaves to each. This is better than placing only one stake to a plant, and "bunching" the foliage to it, as the former method carries off the water to the outside of the clump.

Only stout stakes should be used, and thin sticks or canes left out of the arrangement, as they become loose through having no "purchase." In the spring, the old, worn-out foliage can be cut away and the stakes removed, there being no longer any need for the screen.—C.

145. *Propagating Pinks.*

Take pipings from the outside of the plants, strip the leaves to about three joints, cut at the bottom joint with a sharp knife, and place them in water to stiffen. Dibble in 1 in. apart, sprinkle with water and close lightly, with a hand-bell, as soon as the foliage is dry. Uncover for one week when rooted. They should be ready for planting out in about eight weeks.—H.

146. *Propagation of Primula denticulata.*

It is not generally known that this primula can be propagated from root cuttings. Pieces of root about 2 ins. long should be inserted in pots of sandy compost with the tops level with the soil and placed in a moderate heat. This can be done in the spring, and by the end of the first season quite large plants will have been produced. Where more than one bud is produced on a root they should be reduced to one.—T.

147. *Treatment of Herbaceous Perennials.*

After cutting down the stems of these, the remaining portions are often left to decay, unless they are blown down by the wind. In the interval the stumps—at least those that are hollow—are filled with water, which, in the event of frost, becomes frozen, the probable result being that injury is inflicted on the crowns. Though it is not suggested that the stumps should forcibly be removed, it is an advantage to clear them off as soon as they can be parted readily from the base. The gaps left will fill with soil during rain, thus affording protection to the crowns. If severe weather is expected, they should be filled up without delay. I consider this an important item in the cultivation of border plants, and make a point never to overlook it.—M.

148. *A Charming Variegated Rose Border.*

To increase the charm of beautiful-coloured roses by contrast of other colours, I planted borders of roses in two rows, giving a little more space between them than usual. Between the rose-bushes I planted dwarf *Delphinium chinense* (blue butterfly) and blue gladioli in the following manner: every two spaces one delphinium alternating with one group of three gladioli. Especially good roses for this purpose are Sunstar, Mme. E. Herriot, Captain Ronald Clark, Hortulanus Budde, K. of K., Irish Fireflame, Isobel, Mrs. Haworth, and Queen Alexandra. In early summer the cobalt blue delphinium blossoms form a very artistic contrast to the red shoots and leaves of the roses as well as to the colours of the flowers. The gladioli should be planted late that they may flower with the roses in autumn. Such borders are very harmonious and a striking feature.—M. L. W.

149. *How to insure Peonies against Frost.*

When tidying up the herbaceous border, do not cut off all the old stalks and leaves of peonies. Turn down five or six stalks with leaves outward, thus forming a tent 9 ins. or 10 ins. above the plant's growing centre. Tie round with bass. This insures the spring buds against frost, an important point in northern gardens, and is not unsightly. When the pushing buds are inconvenienced and no longer need it, remove the cover. Few who adopt this plan will regret it.—C. H.

150. *Thalictrum dipterocarpum.*

This seems to be a rather difficult plant to grow successfully. I had a batch of these in a Gloucestershire garden which everybody admired who saw them. The tallest plant reached a height of 6 ft. I examined the border afterwards to see what the subsoil was, and found that it was nothing but brick-ends and mortar rubble. The top soil, which was only 10 ins. or 12 ins. deep, was enriched with cow manure.—F. W. D.

151. *A Good Method of Michaelmas Daisies.*

In using Michaelmas daisies as a background for herbaceous borders which cannot be deeply cultivated year by year, I have found the following method both successful and economical: Being gross feeders and well doers, when

properly grown they need yearly division. Each autumn the old roots are dug up and holes 15 ins. square and 1 ft. deep are opened out on the same sites, and two spadefuls of good rotten manure placed at the bottom. The old soil is used to fill up the holes and three single crowns from the old root planted in the form of a triangle. So treated the young crowns will produce in the following season strong branching stems, sometimes as thick as a forefinger and carrying a multitude of perfect blooms.—S. H.

152. *Retaining Sweet Scabious for a Second Year.*

When clearing "summer stuff" that has done duty during the season past, think twice before removing the sweet scabious. A true garden friend, not only is it still doing its best by thrusting out fresh flowers to beautify any modest corner where the seed has been thrown, but it will flower the second year with a little care, yet more finely than the first. Even through one particularly bad winter some plants which had already flowered well were kept under a south wall out of doors, the snow often standing on the pots. Replanted in good soil in May, they continued blooming throughout the summer. It seems that "biennial," like "annual," is a misnomer for this plant, which is really a short-lived perennial. The colours from which to choose, when the moment comes for saving them, are singularly beautiful.

F. S.

153. *Spring and Summer Bedding Together.*

The following method I have found most successful and labour saving. Get your bed prepared for planting, then first fill up your bed with Canterbury bells, planting about 1 ft. apart, and between these plant tulips. The tulips give a fine display in the spring, and can be lifted when they have done blooming and dried off. The Canterbury bells continue to grow on and fill the bed, and give a good display right through the summer. A tulip I like for this method is Prince of Austria.—W. T.

154. *A Spring Effect in Bed or Border.*

Darwin tulip Loveliness with *Cheiranthus mutabilis* as an undergrowth, deep bordering of pink and blue myosotis interspersed. *Ajuga reptans atropurpurea* as an edging and foil to grass.—F. W.

155. *For the Small Garden.*

The small garden owner will find it of interest to set aside each year one bed and devote it to the growing of one special kind of flower, making a sort of speciality of it for that one year. The soil must, of course, be prepared accordingly. I have grown thus, in succession, carnations, antirrhinums, gladioli, dahlias, and chrysanthemums. This brings variety into a garden where a great number of plants cannot be grown, preventing a monotonous sameness year after year. It increases the gardener's interest, enlarges his flower acquaintance, and informs him as to the special requirements of different plants. Flowers which are seen to do particularly well may, if so desired, become a feature in the garden year by year.—J. L.

156. *Filling Gaps in Borders.*

Very often in borders where large patches of bulbs have been planted for spring flowering a bare place is left for the summer when these die down. This difficulty may be overcome by sowing between the bulbs, while they are still growing, seeds of Shirley poppy, clarkia, marigold, or any other dwarf-growing annual. The result will be a good display of bloom without injury to the bulbs.—W.

157. *Treatment of Mossy Saxifrages.*

The appearance of borders and clumps of mossy saxifrage is often spoilt (especially near towns) by the withering or brown appearance of the centres. This condition can be prevented by a little attention twice a year—in spring and late autumn. Dress the plants by shaking into the clump from the top (using a handfork to loosen the soil underneath at the same time) a good potting soil with an addition of fine stone chippings. A little patent manure should be included in the spring dressing.—D. E.

158. *Another Way with Saxifrage.*

The mossy and encrusted saxifrages should have attention now in every case where they have formed dead brown patches. These, if allowed to remain, spoil the appearance of the plants, but a little care will soon remove them.

The dead parts of the mossy varieties may be carefully

pulled out, but the withered rosettes of the encrusted kinds must be cautiously removed with a sharp pair of scissors, care being taken not to cut the root branches.

The cleared spaces may then be filled with a top dressing of good soil, leaf-mould, and sand, mixed with a little vegetable manure; it should be worked well into the plant. If the weather is very dry and windy, a shower from a watering-can will be advisable. So treated, the plants will soon send out fresh suckers into the new soil and fill up the cleared patches with vigorous new growth.—G. H.

159. *A Rock Garden Hint.*

A small colony of the wild scarlet pimpernel, self-sown in my rock garden, has settled in a carpet of *Acaena microphylla*, close to a patch of *Campanula pusilla*. The vivid scarlet of the pimpernel on the iridescent acaena against the little blue campanula is one of Nature's happy thoughts. It makes a miniature colour scheme among the rocks, which is quite charming and well worth arranging. In sunshine, after a shower, the rain diamonds always collected by acaena make the colour contrast still more delightful.—H.

160. *Replacing Old Helianthemums.*

After a few years the helianthemums, though perhaps still flowering freely, get ragged in growth and lose the level appearance that shows the blossoms most effectively. They seed, of course, very freely, but the seedlings are rather difficult to move safely and their colouring is always doubtful.

By far the safer way of replacing the old plants is to cut off a well-shaped branch just below a fork and as soon as the plant is dug up, put the branch into the same ground, first filling the hole with water. It will root immediately, and the following season you will have a good-sized plant flowering freely and, of course, true to colour.

When the flowering season is over, it is well to provide a new stock of these invaluable plants. All that is necessary is to take a good-sized cutting and put it where you want it to grow. No plants strike more easily, and cuttings sent by post to friends, if placed for an hour in water on arrival, will be just as satisfactory.—G.

161. *Propagating Border Carnations.*

The best method of propagating border carnations is by layering in July. The dead grass and any weeds found should be removed from the base of the old plants. Some gritty compost should be packed underneath and, after making a slanting cut 1 in. long in the stem and about halfway through it, peg the layer into the new soil and keep the latter nicely moist. Roots should form by the end of September.—G.

162. *Bulbs under Trees.*

One of the most useful points connected with bulb culture is their suitability for borders under the shade of trees. Crocuses, fritillarias, colchicums, chionodoxas, muscari, daffodils, narcissi, and even tulips will all flower happily in such a situation. They are, therefore, specially valuable for town gardens where the shade of trees or houses is almost inevitable.—T.

163. *Constructing a Rock Garden.*

All rock plants require a free root run and ample drainage. To insure this, the foundation of a rock garden should consist of stones, brick-ends, or anything that will give good drainage; never should it be a bank of heavy earth. The stones that are to show should be near the surface, each being nearly buried when the soil is added. Turves should be placed over the stones wherever there is to be soil to prevent the crevices being blocked by soil. The compost should be of a free and porous nature; grit or gravel mixed with good light loam and leaf-mould is suitable for nearly all rock plants, but many also require lime rubble. The best time for construction is the autumn or early winter. The soil will then settle during the winter, and planting can be begun in spring.—C. O'C.

164. *Bracken as a Covering.*

Bracken is an excellent covering for delicate bulbs and plants in cold weather, but in windy gardens it often gets blown away. If small sticks are put into the ground about 1 ft. apart, and garden string stretched from one to another, so as to form a network above the bracken, this will not occur.

D. E. R.

165. *Bulbs plunged in Ashes.*

Readers who grow bulbs in pots of soil will be familiar with the annoyance caused by the ashes—in which the pots are

plunged—sticking to the surface of the soil. To obviate this nuisance, the pots of compost should be given a fairly thick surface coating of sand. Ashes will be found to come off this cleanly and, in any case, the sand can be cleaned off quite easily.

D. S.

166. *Planting Bulbs.*

When planting bulbs with scales, such as lilies, do not plant them in an upright position, but lay them a little on one side. This prevents too much rain lodging in the scales and so rotting the bulbs.—L. F.

167. *Bulbs in the Soil.*

In clearing up beds for the winter it is difficult to avoid digging into patches of choice bulbs. This may be prevented by sinking slates or tiles (damaged ones will do) in an upright position around the bulbs, the tops of the tiles being just under the soil level. Patches of bulbs may thus be kept undisturbed for years, and may be divided when they become crowded.—M. S.

168. *Top-dressing Gentians.*

Many fail to grow gentians, such as *GG. acaulis*, *verna*, *sino-ornata*, *Farreri*, and similar species with any degree of success, and to those who have failed the following treatment is recommended. In early spring the growths of *G. acaulis* are well above the soil and, consequently, are easily disturbed by the wind. Such patches should be cleared of weeds, the top soil lightly pricked over, and then given a top dressing of leaf-mould and grit. Work it well between the growths, make it firm, and when the job is done the shoots will just show through the soil. In May the result will be seen in healthy, strong-flowering shoots. *G. verna* responds well to this treatment, and miserable specimens become a healthy mass in a few years. Both *G. Farreri* and *G. sino-ornata* are on the move in early spring, and these will benefit by a top dressing then and another a few months later. The chief point is to make the soil quite firm and get it well down between the growths.—S.

169. *Eggshells for Gentians.*

Crushed eggshells are of great value to the deep blue gentian (*Gentiana acaulis*), which thrives in soil having plenty of lime in it. Apply them around the plant as you would grit.—E. N.

170. *New Life for Gentians.*

Anyone failing to grow gentians successfully should try scattering chicken grit (to be bought for about 1½d. per lb. from any corn merchants) thickly around the plants. If this is done repeatedly they will soon flourish in a surprising manner. Most alpine plants thrive under a coating of the grit.

A. L. N.

171. *Gentiana verna.*

I have successfully grown the vernal gentian for some years in the following way: Procure a small square of loamy turf, place it grass side down in a sheltered corner of the rock garden, facing, if possible, north-east. Plant the gentian in the loosened roots of the turf, adding a little leaf-mould and sand. A good way to protect the plant when small is to place an inverted wire basket over it. Water freely in dry weather and top dress every year after flowering.—M. C. M.

172. *Propagating Lavender.*

Lavender may be easily propagated by cuttings taken in April. Break off with the finger and thumb sturdy shoots 6-8 ins. in length, each having a heel. Insert firmly about 3 ins. deep in rows 9 ins. apart in ordinary garden soil in a sheltered position. By September they will be well-rooted plants, and may be transferred to permanent quarters. In 3 or 4 years a handsome hedge may be grown. At first nepeta may be planted to make a show, but care must be taken to allow plenty of room for the development of the young lavender plants. The nepeta foliage blends effectively with the blue-grey of the lavender.—A.

173. *Planting Water Lilies.*

A good method of planting water-lilies and other aquatic plants is as follows: Procure a square of fine-mesh wire netting 4 ins. larger all round than is required to accommodate the root, cut 4 ins. from the edges of two opposite sides 4 ins. deep, then a basket can be formed on the same principle as a cardboard box is made, the sides being fastened by the loose ends of wire obtained by cutting.

These baskets are not so unsightly in shallow water as the wicker baskets—which rot so quickly—and can more easily be lifted for soil replenishment.—A. C.

174. *Propagating Lithospermum prostratum.*

Many find this a difficult plant to propagate, for seeds are scarce. To keep up a supply, one must resort to propagation by cuttings, which can be taken in September from outdoor plants, and dibbled into sand under a bell-glass. When rooted—about May—they may be potted into 2-in. pots and kept in a frame for a time. An easier and quicker method—if a propagating pit is available—is to place a couple of good plants established in 5-in. pots in the warm house in February, and as soon as the tips are growing freely, sever with a sharp knife and dibble them in sharp sand, overlaying with 3 ins. of coconut fibre, in the propagating frame. Water and keep close until rooted, which will be in about a fortnight, then pot up in 2-in. pots in good leafy compost and stand on the stage until well established.—F. J. L.

175. *More about Lithospermum.*

Those who have trouble to strike *Lithospermum prostratum* should keep a plant in a greenhouse in a pot and take the cuttings from the plant when about $2\frac{1}{2}$ ins. to 3 ins. long and put them in a warm house. Then they will root quite easily, and the tips from these if taken will also root without trouble. I usually strike the cuttings in sand all through the summer.

W. J. V.

176. *Transplanting Perennials.*

During open weather October or November is a good time to lift perennials and remake the beds. The ground should be dug two spits deep, and then well manured. When replanting, instead of putting each plant back in a large clump, divide the plants up and replant them in a *circle*, leaving a space of from 9 to 12 ins. in the centre with *no* plants in it. This will insure that light and air will get right into the heart of the clump, and the blossoms will derive great benefit on account of the extra room.

In two or three years the heart of the clump will fill up, but when it does it will be time to remake the bed.—W. H. J.

FRAME AND GREENHOUSE

177. *When building a Garden Frame.*

In constructing the brickwork of a frame, the following hint will prove exceedingly helpful: At about every three or four rows of bricks, place two or more broken bricks opposite on both sides, projecting in towards the centre of the frame. The projecting bricks are of great value, because they act as supports for wooden shelves on which to rest boxes or pots of seeds, cuttings, etc. Therefore, if you have three or four of these rows, you can move boxes, etc., towards or away from the lights. The shelves should be about 9 ins. wide, 1-1½ ins. thick by the same length as the width of the frame. With a small oil lamp placed in the centre of the frame it would make an ideal seed-raising compartment.—S. W.

178. *Home-made Cold Frames.*

Very useful cold frames may be easily constructed from old quarter-plate negatives and some planed 1 in. by 1 in. wood battens. The film should be washed and scraped from the glass and a rough frame made of the battens. Lengths of narrow laths tacked to the cross-pieces of the framework will support the glass, and as an extra precaution they may be puttied into the frame. I have such a frame in use, and have found it most satisfactory.—H. J. R.

179. *A Cheap Frame.*

Bricks being costly, I built three frames for the cost of a bag of cement. This I mixed dry with 4 bags of clinker broken up the size of cob nuts. I then made some rough shutters the size of a frame, keeping them 6 ins. apart to form the wall. The cement and clinkers were well wetted and mixed and the space between the shutters filled in and left for forty-eight hours to set; when the shutters were removed a solid wall was the result, which, after eight years' use, is as good as ever, and no repairs are ever needed.

H. M. B.

180. *Bottom Heat for Seed Propagation.*

Seeds requiring bottom heat can easily be raised in a cold greenhouse in the following manner. Make a small propagating frame, about 30 ins. deep, with a glass light. Line the sides and bottom with several layers of paper and nearly fill it with hay, which should be firmly pressed down. In the centre make a hole and insert an eighteen-penny tin boiler with a lid. Fill this with fast boiling water night and morning, and cover with hay. Place the pots of seeds over and round the boiler and keep the light closed. When the hay sinks down, add more. The pots should be sunk in the hay.

M. W.

181. *How to make an Indoor Rock Garden.*

I have a small unheated greenhouse, about 8ft. square, which I have made look very attractive all the year round. Instead of rows of pot plants, I have arranged the shelf where they used to stand as a rock garden, similar to those exhibited at flower shows. In the centre I have placed a shallow tin painted green and filled with water, and a little figure reclining on a piece of stone. Between the soil and the glass I have one row of plants; the soil of the rock garden reaches the top of the plant pots, in which grow ferns and graceful flowers, some of which droop and some which climb, such as ivy-leaved geraniums, etc., all making a pretty background, and the front has trailing plants like sedums, mosses, etc.—W. W. J.

182. *A Substitute Fuel for the Small Greenhouse.*

When the husks of beech nuts are falling fast gather them before the leaves fall and store in the dry. These will be useful as fuel later on, especially if mixed with a small amount of coke or small coal.

They burn well, emit a good heat, and stoke easily with a shovel.—H. F.

183. *How to prevent Fumes and Smoke from Oil Stoves in Greenhouses.*

Many people have found it necessary to use an oil stove to keep frost from the greenhouse. To prevent the stove smoking the wicks must be kept trimmed and the burners

clean. If a block of camphor be dissolved in each quart of paraffin the light will be brighter and the fumes not so strong. Also the lamp will not smoke. Another tip is to soak the wick in vinegar and then dry it before using.—T. H. H.

184. *Light in Greenhouse.*

After fumigation, the greenhouse glass becomes dull. It is imperative that this blueness or smoky film be removed in order that the young plants may get full benefit of all the light. If an eggcupful of methylated spirit be added to water used for cleaning the glass, it will not only expedite the work, but prevent the glass from getting into the same state for a considerable time. A trial will convince the sceptical.—H.

185. *Ripening Tomatoes grown in a Cold Greenhouse.*

It is often found difficult in late summer to ripen tomatoes grown in a cold greenhouse. Pick the tomatoes, wrap each one in paper, and put them in a box in a warm place. In my own case I find that the kitchen mantelshelf has just the right temperature. Treated in this manner the tomatoes colour and ripen fit for use in a few days.—E. N.

186. *The Watering of Pot Plants.*

Where there is a large number of plants in 60's, and there is no need to use a watering rose, it will be found that one is apt to over-water, because of the difficulty in regulating the stream of water from the spout. A length of unjointed bamboo should be cut, and fitted into the spout of the can, and it will be found to minimise the danger of over-watering, and to allow for easier reach to the back of the staging.—R.

187. *Greenhouse Shading.*

When the sun increases in power at the beginning of the summer, the problem of greenhouse shading again presents itself. Something inexpensive, yet which can be removed in dull weather, is difficult to attain. Outside blinds on pulleys are expensive, and get in the way of ventilators. The fact that tomatoes growing on inside of roof gave just the right shade suggested the following plan: Run a wire the length of house inside near the eaves and another just below the roof ventilators. A cheap muslin costing about 4d. a yard, 30 ins. wide, hemmed with tape, on the edge of which are

sewn a few rings at intervals can be run along its length. The rings are threaded on the two wires, and two strings attached to draw it backwards and forwards. Such a contrivance on each side of the house should be sufficient, but if not another over path can be put up.—H. P.

188. *Mending the Greenhouse Pipes.*

As late autumn approaches and the heat is being increased in the house, it is no uncommon thing for the pipes to exhibit a burst, and it may be of interest to others to know how such a contingency may be easily and effectively dealt with without running off the water or reducing the fire heat. As soon as the crack is observed, obtain a pound or two of ordinary builder's cement, and with each pound mix in a dry state 1 oz. of common washing soda. Next fix a wooden or strong cardboard box around the pipe so as to form a mould, then add a little water to the cement and soda, and after mixing it into a thick paste, pour it into the mould. This mixture will be found to set very quickly and will make a watertight joint, but to be successful it is important that the ingredients be first mixed together while dry, and that it is used as soon after the water is added as possible.—R. K.

189. *Home-made Putty.*

Not many people know that putty can be easily made at home, and is useful in many ways. Simply mix whiting and boiled linseed oil together until it can be made into a ball. Leave it until the next day, when it is ready to use.—H.

190. *A Preventive for Damping-off among Seedlings in Frames.*

It is during spring when batches of annuals are being raised from seed that the gardener has to suffer much loss in his crops through the dreaded damping-off disease which makes its appearance through over-watering and bad ventilation. One of the most effective remedies I know is to water the seedlings with a dilute solution of potassium permanganate. The best way to judge the strength of the solution is not so much from the actual quantities, but from the colour of the solution, which should be of a pale pink to purple tinge. Watering with this solution should be carried out at least twice a week, and the results will easily repay.

A concentrated solution of the permanganate can be purchased and diluted with water to the desired strength—or, rather, colour. A few drops of it put into the water kept in the greenhouse will be found beneficial in keeping down the scum which invariably collects on the surface of the tank.—R. E.

191. *More about Damping in Frames.*

Apart from the continual rain and sunless days, late autumn generally brings much fog, and to all who have frames of various plants, such as lettuce, violets, etc., damping off is one of the worst things to contend with. A quantity of unslaked lime, however, about the size of a coconut, put in a flower pot or small box and placed under each light will be found to absorb all the moisture which would otherwise settle on the plants. This answers the same purpose in a greenhouse where chrysanthemums are grown.—C. E. J.

192. *Another Hint on Damping in Frames.*

I do not know a better method to prevent damping in frames than the following: When matting or covering up for the night always leave a little air on by placing a piece of wood $\frac{1}{2}$ in. thick under each light, and allow the matting or sacking to hang well down over the frame so that the air in passing through is warmed, and no matter what kind of weather prevails no draughts can enter the frame.—J. H.

193. *Damping-off of Seedling Herbaceous Calceolarias.*

To avoid damping, which often occurs in the seedling stage, I find nothing better than shifting them several times when small, instead of pricking off singly as soon as the second pair of leaves appear, I prefer placing them in small pans in bunches, three or four together in rich soil with plenty of crushed bricks mixed with it until a little more root is made. A cool frame facing north is best for these subjects. Plunge the pans in sand or sawdust to conserve moisture. A tiny frame within a frame is ideal at this early stage of growth. The idea is to keep the seedlings on the move, without giving much water, as this tends to sour the soil. Once watered, then use the syringe.—F. W.

194. *Early Tomatoes and Damping-off.*

Many gardeners complain of damping in tomatoes, especially in December and January. To avoid this, smash

up a few pieces of brick and pass through a $\frac{1}{4}$ -in. sieve, using the rough for crocks and the fine mixed with the soil. The first pricking off should be four around the edge of a small 60-size pot until they have made a little more root; then after a week or two place singly in large 60's, press firmly round the edge, leaving the soil around the stem a little higher so that when water is given it runs around the edge without touching the stem. In both cases use lumpy soil and scatter a little brick dust on the surface. From 100 seedlings pricked off the last week in November only three have damped.—D.

195. *Dried Fowl Manure for Potting.*

Potting composts can be considerably enriched by the addition of a small percentage of guano or some other all-round manure. A good "home-made" guano may easily be collected from the fowl-houses, and this will furnish a sufficient supply for the needs of the potting bench. Fowl droppings are a very rich manurial substance, but pigeon manure is even better.

Collect the substance before it is allowed to cake or get trampled together; when dry, store it in bags in any dry position. When thoroughly dry it will not smell in the slightest degree; but should the drying process not be complete, a little gypsum, a very cheap lime compound, will keep down the odour and at the same time enrich the manure. When the guano is dry it can easily be passed through a riddle and rendered suitable for potting purposes. Never use this manure if it contains sawdust.—W.

196. *To improve Potting Loam.*

Keep some of your next load of loam for potting purposes in the chicken run and let the birds scratch it over freely. You will find the result in the finer blooms in the conservatory.

A.

197. *Potting Materials.*

Autumn is the time to look out for potting soils for the coming season. It may be difficult and too expensive to get the best loam, but good results can be obtained with any close texture sward, the thing is to get plenty of fibre and not cut more than 4 ins. thick, 3 ins. is better. If plenty of road or lawn parings can be found, this would be useful; it

should be stacked sward side downwards with a layer of leaf-soil every 6 ins. When this has laid for three months and is chopped down it makes splendid potting material. If this and ashes from the smother fire, charcoal, peat, leaf-soil, sand, and moss, both hedge and sphagnum, are in readiness, work can be carried out without delay when the time arrives.—G. W.

198. *Substitute for Moss.*

A good substitute for moss for covering over the crocks in plant pots before filling up with compost—especially in dry districts where moss is hard to find—may be found in *Arenaria montana* pulled from the random paving. It is also excellent for sending away flowers by post.—P. B.

199. *Leaf-mould for Potting.*

If fresh oak and beech leaves are gathered and put into sacks and kept in a warm place near a stove or copper and, when dried, rubbed through a $\frac{1}{2}$ -in. sieve, the best form of leaf-mould for use for potting purposes is obtained.—M. G.

200. *A Ready Supply of Baked, Weed-free Soil for the Seed-boxes.*

When raising plants from seed, trouble is always experienced, in a greater or lesser degree, from the weed seeds that lurk in the potting soil. The use of baked soil is the only absolute safeguard; but the baking of soil, even in the limited quantities needed for the operations of a small garden, is both a tedious and difficult business. The kitchen oven is seldom available, is limited in its capacity, and, moreover, this method does not usually find favour with the cook. The following plan is highly recommended as offering an ample supply of baked soil with an absolute minimum of trouble: When the periodical garden bonfire happens to be a big one and is burning in good heart, place half a barrowful of turves in and around the hottest parts, or bank the whole fire down with them as soon as there is plenty of heat inside. As the fire is worked to a finish the turf will break up and mix with the hot ashes, and the soil it contains will be thoroughly baked. The resultant diluted mixture of soil and ash, put through a fine riddle and mixed with clean sand or grit, as required, forms a most excellent weed-free and stimulating mixture for filling into the top 2 in. of seed-boxes.—H. S.

201. *To warm Potting Soil.*

It frequently happens in the spring that a quantity of soil is required in a hurry for potting or pricking off seedlings, and all the available constituents such as loam, sand, and leaf-mould are out in the open and are too cold for use.

The best plan is to mix the compost and then place two or more ordinary bricks in the fire until they become thoroughly heated. These should then be placed in the centre of the heap of compost, which should be stirred occasionally to bring the cold outer soil into contact with the bricks. It is surprising how soon a large bulk of soil may be warmed by this method.—T. H. E.

202. *The Final Potting of Chrysanthemums.*

When putting chrysanthemums in their final pots, bring the new compost above the old ball around the sides, so as to make it saucer shape; this allows for the old ball of soil to receive most of the water instead of the new soil. In two or three weeks level it down over the ball. This prevents the new soil getting sour before the roots get into it.—C. L.

203. *Propagation of Greenhouse Chrysanthemums.*

In November, December, and January, as blooms fade, remove from pots and plant in reserved sheltered space in kitchen garden. In April, dig up roots, tear off the side shoots, which by then will have formed well-rooted plants. Place in nursery bed, stop as necessary, in September pot up, and after three weeks put in a greenhouse. This well-proved method resulted in hardy, well-shaped plants with perfect foliage, with blooms of exhibition size, with the minimum of labour.

The ordinary method of detaching and inserting in sand in greenhouse is in no manner comparable, involving considerably more attention, and sometimes with far less satisfactory results.—E. M. W.

204. *Striking Chrysanthemum Cuttings.*

In the following method of striking chrysanthemum cuttings one can be sure of 100 per cent. success. Soak as many pots as are wanted in water all day previous to their being used, stand to drain all night. Although manures are not wanted in striking compost, powdered burnt bones are

an advantage, using a sprinkling. After the cuttings are inserted give a good watering and place in a propagating frame on closed stage and put on glass top. The important point is to take this glass top off *every evening* about 5 p.m. and leave off all night. In the morning, about 9 a.m., sprinkle the cuttings with a syringe and replace glass top, keeping it shut all day. Should the point of a leaf show decay the first day or so, pinch the piece off, but not the good part of the leaf, as sometimes it is already in the tip of the cutting while still on the plant. No other watering will be needed. Seventy-eight cuttings which were inserted in November (one per pot) all rooted well. Warmth in greenhouse only at night.

S. H. C.

205. *Ringing Leggy Plants.*

I have practised the following simple method with success. Break a small-sized flower pot as near in half as possible, next get ready a mixture of one half moss, and the other half sharp sand and fibrous loam in equal parts. With a sharp knife slit the stem of the plant upwards just beyond half-way through at the height required to root, place a small wedge in this to keep it open, place the two halves of the pot round the stem with the slit two-thirds into it with the stem passing through what was the drainage hole, tie firmly, and also tie to a stake to hold in position, fill in fairly firm the moss, sand, and loam, and in placing the plant where it won't be disturbed, and keeping moist by syringing, in two months you will have a well-rooted, sturdy plant ready for potting. Simply cut through the old stem below the ring.

W. S.

206. *Propagating Late Chrysanthemums.*

The late-flowering indoor chrysanthemums should be propagated early in the new year. Some varieties are what gardeners call shy and do not throw up cuttings very readily. In order to make sure of cuttings, knock the old stool from its large pot and repot in a small one (say 6 in.). Use good potting compost, when more and suitable cuttings will be thrown up.—T. H. H.

207. *Chrysanthemum Cuttings.*

Make up a compost of two parts good loam to half part of leaf-mould and one part sand. Put loam and leaf-mould

through a $\frac{1}{2}$ -in. sieve and sand through a $\frac{1}{4}$ -in. sieve. Mix this thoroughly and fill cutting box to within $\frac{1}{2}$ in. of top after putting a layer of coarse leaves over bottom of box. Cover this with a good layer of sand, and water if too dry. I generally use boxes 2 ft. by 1 ft. 3 in. and 4 ins. deep. Take stiff stocky shoots about 3 ins. long, coming direct from soil of old stools. Remove carefully with a sharp knife and have pieces of paper to name varieties as taken. Trim cuttings and cut stem squarely across immediately below joint with sharp knife so as to prevent bruising. Insert cuttings in box with unsharpened end of pencil and label as varieties are put in. I get sixty cuttings in a box on an average. Water and put on shelf in greenhouse with a temperature about 50° . Now take cutting box same size and remove bottom, put this over cuttings and cover with a piece of glass. Keep fairly close for a few days and turn glass every morning to remove condensed moisture. Gradually increase air until the glass can be removed altogether. Cuttings root in about three weeks. Never put cuttings in boxes where wood is not well seasoned, as I note results are disappointing, which must be caused by sap in wood. I always get a good percentage of strikes by this method.—W. J. B.

208. *Tuberous Begonias in the Greenhouse.*

Upon restarting tuberous begonias into growth early in February, remove the tubers from their pots and, instead of filling trays with fresh loam, leaf-soil, or peat, use the old soil in which they were grown. It will be found that this is full of dead root-fibre, which proves a most excellent starting medium. It encourages shy starters to break more readily and growth is invariably more vigorous and healthy than if fresh soil or fibre is used. A sprinkling of flowers of sulphur added to the old soil is a precaution against mite.—C. C.

209. *Starting Begonias without Heat.*

For those who wish to have begonias blooming in the garden early in the summer, but have no heat in which to start them, it is well to commence them indoors in early spring. Procure a shallow box, pierce numerous holes in the bottom, and cover with plenty of clean drainage. Fill with rich soil well watered.—E. M. M.

210. *Propagating Tuberous Begonias.*

Those who want to work up a stock of these lovely plants quickly, and at the same time true, will find the following method well worth a trial. Old tubers should be started in boxes of fibre. These should not be in any way forced, and should be left in the boxes until the growths are about $2\frac{1}{2}$ ins. long. Then with a sharp knife they should be cut off close to the tuber. The cutting should be potted into 3-in. pots, using a compost of two parts maiden loam, one part leaf-soil, and one part sand. Potting should be done in the following manner: After putting a large piece of crock in the bottom of the pot for drainage, place a small quantity of moss, then fill up with compost to within $\frac{1}{2}$ in. from the rim. Dibble a hole in the centre of the pot, and before inserting the cutting put a pinch of sand into the hole for the base of the cutting to rest upon, then insert the cutting and press the soil down moderately firm. Water with tepid water and plunge the pots in a propagating case where a temperature of between 70° to 75° is maintained. When the roots have formed, remove the pots to a cool pit, and, as they require more root room, repot them into larger pots. Where more plants are required two or three shoots should be left on the old tuber and again propagated in the same manner as the maiden shoots.—J. B.

211. *Raising Begonias and Gloxinias from Seed.*

Place some loam in a baking tin or something similar and place on the boiler fire to bake. It is an advantage to let the lower soil become burnt, as it is suitable food for seedlings. Then get some flaky *wet* leaf-mould and allow it to get very hot. I treat the sand the same. Pass loam through an $\frac{1}{2}$ -in. sieve and leaf-mould $\frac{1}{4}$ in., then mix in equal parts, adding sand. The day before sowing place enough 48 size pots in water to soak all day, drain them off at night. Fill pots to within 2 ins. of the top with crocks, place a little rough siftings over and $1\frac{1}{2}$ ins. of prepared soil, water with rose can to settle the soil. About an hour after sow the seed, first mixing a pinch of sand with it to sow evenly. Two days after sowing dip the pots in warm water level with the soil *only*. Repeat this in a week, and if placed in a propagator I always look for germination in ten days, and am not disappointed. A piece of glass should be placed over pots and shaded with paper. The object is to

keep the soil *very wet*, and the baking prevents the soil becoming sour—keeping good six to eight months. From a 2s. 6d. packet of gloxinia seed I raised 300 seedlings in this way.—S. H. C.

212. *Rhodanthe for Greenhouse Decoration.*

This is a very useful little plant for pot culture. The seeds should be sown in pots in February or March, but in southern counties they can be sown in the open ground in May on a warm border in an open position in a good light soil, peaty if possible.

Seeds can be sown again in July as the May sown plants die off. To grow rhodanthe well in pots and prevent damping off, put a little powdered charcoal round each plant.—M. D.

213. *Propagating Begonia Gloire de Lorraine and its Type.*

In addition to propagating these plants by the usual method of cuttings taken from the base of the plants, they may also be increased by leaf cuttings. During February and March select good healthy leaves that possess a growth eye, or bud, in the axils; remove with a heel and insert about $\frac{1}{2}$ in. deep in pans, in a mixture of equal parts of coconut fibre and silver sand, and plunge in brisk bottom heat, not necessarily in a close case. These readily root, and in a short time throw up a number of growths. Plants raised in this way grow much stronger, are better furnished, and produce finer flowers than those propagated in the usual way. Old plants after flowering should be rested in a slightly lower temperature—not dried off—previous to growing on another season.—C. N.

214. *Starting Begonias.*

Many people find it hard to get begonias to start evenly. In dealing with hundreds of bedding begonias, I had generally 20 per cent. later than the rest. Now I find that the best way is to place the bulbs "eyes" downwards on sand in a warm temperature for about a fortnight, with no top covering. By that time all the bulbs will be showing growth. They can then be turned and lightly covered, and all will grow on together.

Begonias thrive best in damp, well manured ground. Place the tubers firmly in the soil and cover box with glass, preferably "Vita" glass because of its beneficial effect. Place

in a sunny window in a room which is always kept at a good temperature, water regularly, and avoid draughts. As the plants shoot up, the glass can be gradually raised by placing small and then larger stones at each corner. By May they ought to be in bud and ready to plant out.—E. M. M.

215. *Primula Seed and Germination.*

In many instances primula seed fails to germinate and often causes trouble when batches of plants are required. Especially is this so with *Primula obconica grandiflora* (pink, blue, and blue shades, which are very useful for table decoration) and *P. Malacoides*, also hardy primulas Beesiana, Bulleyana, *denticulata*, Lissadell hybrids, and *sikkimensis*. Seed of all the above varieties will germinate more freely if sown when gathered from the seed pods instead of getting hard and dry. Seed may be sown in pans or boxes half drained with small crocks and filled with a mixture containing leaf-mould, old loam, broken crocks, or old mortar rubble passed through a $\frac{1}{2}$ -in sieve, and silver sand. Do not cover seed with soil, keep damp, and cover with a piece of glass till germination takes place.—W. R. P.

216. *Propagating Perpetual Carnations.*

This is the method I have found most successful with cuttings. Take good healthy growths from old plants. Strip off lower leaves, cut just below a joint with sharp knife, then split through joint, until you come to the next. I put cuttings in pure river sand, put through fine riddle if too coarse. Fill up as many thumb pots as required to hold three cuttings in each. Water sand previous to putting in cuttings, if too dry, as holes are easier made. Make holes round edge of pots with unsharpened end of pencil, as it makes a firm bottom for cuttings. Open split in cuttings with point of knife and insert in sand before putting in pots, and make cuttings quite firm. Label all pots and water and then put in propagating frame with very gentle bottom heat, and keep fairly close for a few days. Water only when required, and open frame in mornings to dry up excessive moisture. I find cuttings root in about three weeks or a month. As soon as rooted, pot up singly in thumb pots in good, fibrous loam and a dash of sand. I find that whereas nearly full percentage root in sand with cuttings split, I have been disappointed with cuttings cut just below a joint and in pure sand.—W. J. B.

217. *Making Carnation Cuttings.*

I find it a good plan when making carnation cuttings to split them up from the base to the first joint and put them in a bucket of water for an hour or two, and then the base of the cutting where it was split will have turned outwards. This will allow the sand and soil to get in between more easily. I find that cuttings, treated thus, root better and have more roots than if they are put in as soon as split.—H. S. D.

218. *More about Carnation Cuttings.*

A year or so ago, when taking my cuttings, I tried an experiment. Half of the batch were planted simply as slips, the other half were treated as follows: I split the stems with a sharp knife to a length of about $2\frac{1}{2}$ ins., and in planting these latter a drill was drawn about 4 ins. wide and 4 ins. deep and filled with sharp sand. The cuttings were pressed firmly into the sand with the split stems extended so as to lie at right-angles to the cutting. When the cuttings were lifted for planting in permanent quarters, those treated in the manner described possessed two roots, and the majority of these made more bushy plants and carried more blooms than those simply inserted with a heel.—A. C.

219. *Increasing Cordylines (Dracænas).*

These popular and beautiful foliage plants may be easily increased by means of root-cuttings. Turn the old plant out of its pot, remove several pieces of the thick tap-root (or underground stem) about an inch or two long. Insert these in a pan of sandy soil. Place in a propagating case. In a short time they will grow and develop into fine little plants. If the pieces are removed carefully, no harm will result to the old plant.

220. *Remedy for Cineraria Leaves Curling.* J. E.

This is to erect a tray 3 ins. or 4 ins. below the staging on which the pots rest and of the same area as the staging. Scatter thickly on this tray moss, ashes, or gravel (preferably moss), about 2 ins. thick. Keep this moist, and it will afford the best conditions for cinerarias.

I suggest, as an alternative to this, if it is too expensive, to lay slates on the staging and put the pots thereon. This latter will prevent too much hot air rising directly to the plants and thus keep the plants cool.

Cyclamens do well on such a staging also, and any other plants which dislike a dry atmosphere.—H. M. G.

221. *Watering Cyclamen.*

Great care is needed in watering cyclamen. A good plan is to plunge the pots in boxes of sand, and when water is needed apply to sand. By this means danger of rotting the corms or falling leaves is obviated.—T. H. H.

222. *Phlox Laphami as a Pot Plant.*

This lovely phlox is not only a plant suitable for the rockery or border, but is most charming for the cool conservatory. I have grown it for several years in pots, and its lavender coloured flowers in early spring have been much admired. Take cuttings in June. They will make good bushy plants for flowering the following spring, providing they are pinched well back (twice will be sufficient) so as to encourage plenty of growths from the base. I strike a few each year and grow them the second year in pots. These make good specimens; after that they can be planted out in the rock garden or border. Ample drainage is essential; instead of crocks I prefer mortar rubble and plenty of grit with the soil.

223. *Propagating Tradescantia.*

F. W. D.

This very old but useful hanging plant still holds its place in many greenhouses. A sure and successful way to root cuttings—much quicker than in the ordinary flower-pot—is to dress each cutting with a clean cut to a leaf joint, then insert them into a jam-jar or similar vessel half full of water, place on the shelf near the glass. Be sure that the water is kept up to half the vessel, as the cuttings take up a lot when rooting. In about ten days all have thrown out roots, and can then be potted off into 4-in. pots. Three in a pot make a fine show and are a great improvement to any greenhouse when hanging down from the shelf among other plants.—T. S.

224. *Propagation of Campanula pyramidalis.*

When removing old flowering plants of *Campanula pyramidalis* during October, cut away from each plant a few thick, long, fleshy roots. Cut transversely the thickest ends, trimming off the tapering ends in a slanting direction, to a length of 3 ins. to 4 ins.—i.e., treat roots similarly to seakale thongs. Insert prepared roots in boxes of sandy soil. Keep

in cold frame until March, when each root will have developed to a sturdy plant of four or more separate growths. Transplant each plant to border where intended to flower, or pot on for greenhouse flowering. If the above method is adopted annually, it will provide the border with its tall, graceful spikes of blue and white flowers during the months of June and July. I have proved that where roots are so treated better shaped plants are obtained. Every root produces an established plant. It is a quicker and more convenient way than seed sowing.—C. H.

225. *Growing Saxifrages in Pans.*

Few who grow the exquisite *Burseriana* group of saxifrages know to what perfection they can easily be grown in pans. *Burseriana speciosa*, *crenata*, *gloria*—one can have 80 or 90 of their great white flowers open or opening on an ordinary seed pan. Put three rooted young plants of one variety in a pan of small, irregularly broken stone (Devonshire "shillet" is my own material) with one-fifth good soil added. Stand them out all the year until early December, then put them in a cold frame and keep rather dry. When the buds appear in January, water again, and with the slight protection of frame or verandah they will all open to the early sun in untarnished perfection, and can without harm be brought indoors for a few hours to delight a visitor or an invalid. Give an annual top dressing, and from year to year the pans will increase in beauty.—M. G. C.

226. *A Pot Propagator for Cuttings which are Difficult to Root.*

A simple but efficient propagator for cuttings which are difficult to root may be made as follows: Place a small pot, inverted and filled with moist fibre, inside a large one, fill in with soil until the smaller pot is covered and then plant the cuttings in two rings or one ring, according to size. Place the whole arrangement inside a still larger pot or box and pack moist fibre loosely round it. A glass can be laid on top. The increased wall area obtained by this propagator and the moisture on the outside of the porous pots, serve to draw or urge the formation of roots. The moist fibre preserves the correct humidity without the evil effects of too frequent watering and delicate and difficult plants can be grown quite easily.—G. R.

227. *Mignonette for Winter Flowering in the Greenhouse.*

For late blooming, seed of mignonette may be sown in early autumn in the pots where the plants are to flower. Use good loam, sand, and manure, adding also a little charcoal and crushed lime scraps. Sow thinly on the surface of the soil, which may previously be watered. Cover the seed lightly, and stand the pots in a frame. Shade from the sun until the seed germinates. After that, expose freely to light and air. Thin out the seedlings 1 in. apart, eventually leaving five or six in a 6-in. pot. Water carefully and give the coolest possible treatment all through the early stages. On the approach of frosts, transfer the pots to an airy shelf in the greenhouse.—A. J.

228. *Painting a Greenhouse.*

When mixing paint for above try using a good quantity of paraffin oil. This, although not harmful to plants, is useful in keeping away insect pests and woodlice. Instead of using all turpentine, add half quantity of paraffin oil. It should be noted that paint containing paraffin is slightly longer in drying.—T.

229. *Raising Vegetable Marrows in Frames.*

Instead of the usual way of raising marrow pips directly in pots, where any quantity at all are to be raised, this method will be found to be labour-saving and successful :

Make up a hotbed and cover with a frame. Soak the pips in a bag immersed in a tub of water for two hours. Lay pips about one inch deep in boxes, according to quantity. Place in closed frame, not allowing them to become dry, and in forty-eight hours they will be sprouted an inch. They can now be potted up and placed back in frame after making holes in hotbed to reduce the heat. I have raised sufficient plants for several acres in this way.—C. E. J.

230. *Frost and Pot Plants.*

Pot plants sometimes get frosted through the greenhouse fire going out. This does not mean they are dead. Proper treatment will restore them. Stand the plant on a stone floor and water it with cold water through a rose. The cold water is relatively warm to the frozen plant, and brings about a gradual recovery. To use warm or tepid water will kill the

plant. Plants in porches or *unheated* houses should be kept dry in winter or brought into the house.—H.

231. *Sweet Pea Seed Raising in Frames.*

The objection to seed raising in frames lies in the disturbance of the roots and breakage when transplanting. An excellent method of raising seeds is to plant them in pieces of turf about three inches square and as thick as needed, turn the pieces upside down—after cutting away as much grass as possible—and place in frame. Sow two or three seeds in each to insure one good seedling. When the time for transplanting comes, lift the pieces of turf and plant with seedlings where required, and no set-back will follow. Be sure the turf is free from objectionable weeds.—A. G.

232. *Seed Sowing in Frames.*

The first sowing of expensive seed in a cold frame is rather risky, and it is therefore wise to start with a small sowing. As small wooden boxes are difficult to obtain, cardboard cigarette boxes, pierced for drainage, may be used. These should be filled with soil and packed into a seed box, any spaces left over being packed with dry earth to keep the boxes in shape. As the different varieties germinate the boxes may be lifted from the wooden box in the closed frame and transferred to a similar box in a ventilated one, the spaces so made being filled up with earth to keep the other boxes in shape. In this way much frame-space may be saved, and at the same time it is quite easy to give the seedlings air as soon as they require it.—E. W.

233. *Sowing Valuable Seeds.*

When sowing scarce or valuable seeds, sow each seed separately and cover each indentation in the seed-box, after the seed is sown, with sharp sand instead of soil, thereby insuring the air and drainage so vital for successful germination. A larger percentage of big flat seeds will germinate if the seeds are sown edgewise instead of laid flat, when they are much more likely to rot, especially where slow germinating species are concerned. It will be found advantageous for bringing on seedlings quickly to make the lower half of the compost of seed-boxes richer than the top half. When giving delicate seedlings their first shift, an egg-spoon can hardly

be bettered for moving them with a minimum of root disturbance. In this way quite small seedlings can be transferred to pots without undergoing any apparent check.—C. S.

234. *Sowing Small Seeds.*

Before sowing small seeds, such as begonias, after the pans have been filled and soaked take a handful of dried sphagnum moss and rub it through a fine wire sieve such as is used in kitchens until the surface of the seed pan is covered to about an eighth of an inch deep, sprinkle a little sand on top, then the tiny seedlings will lift with a nice little ball when large enough to prick off.—G. R.

235. *Pricking off Seedlings.*

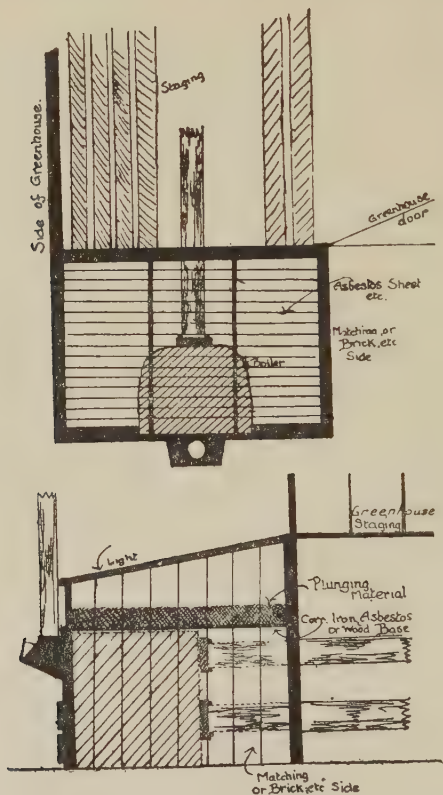
This method will prove both speedy and highly successful in the pricking off of such small seedlings as begonias, streptocarpus, etc. Well crocked pans are filled with a light compost, with a finely sifted layer on top, and just lightly watered (not soaked) with tepid water; this makes the firming of the seedlings easier. The tedious pricking off of such small seedlings will be much facilitated if an ordinary 6 in. wood label be used to pick them up, they having been previously loosened. If the label be held in a vertical plane and the pointed end wetted it will be found that the seed-leaves adhere quite readily to it, and the seedlings are then easily transferred to the pan and made firm by a dibber held in the other hand. It is advisable to water from "beneath" until the seedlings are well established.—W. E.

236. *An Aid to Early Production.*

To prevent the roots of seedlings—which have been reared in warmth for early production—from being disturbed or damaged when transplanting, sow the seeds in eggshells, which one can soon accumulate. Break a small hole in the bottom of each shell to allow water to escape, half fill with soil, put in one or more seeds, and place side by side in a box 2 ins. or 3 ins. deep, then cover the whole with soil. Each shell can be lifted and transplanted without fear of damage, and I have found this answers excellently with sweet peas, tomatoes, etc., and well repays the trouble taken.—W. E. B.

237. *How to make an Economical Propagating Case.*

Amateurs possessing a greenhouse and who intend installing a coke boiler may find the following useful. The orthodox method of installation is for the front plate of the boiler to be



be let in flush with the outside of the house. Thus, with a house 12 ft. long, pipes of 9 ft. would be used—the expansion tank and body of boiler utilising the remaining space.

By using—for a 12 ft. house—two pipes of 6 ft., or one each of 7 ft. 6 ins. and 6 ft. (for flow and return), it will

readily be seen that the front of the boiler is from 2 ft. to 3 ft. outside the house. The sides may be filled in with matchboarding and a sheet of asbestos, etc., placed horizontally immediately over the boiler, the whole being finished off with a frame. By placing a thick layer of peat moss, kept damp, over the asbestos, a satisfactory striking pit is the result, the pots being plunged in the peat.

The obvious advantages to the amateur with limited means and only a small house are the initial cost of a propagating case, upkeep of same, and saving of valuable space in the greenhouse itself.—S. V.

238. *A Home-made Frame for Cuttings.*

It is not altogether satisfactory to strike cuttings in open ground, and where pots and frames are scarce this hint will be found very useful. Knock the bottom out of a large, strong wooden box, preferably one 18 ins. deep. Place this in any partially shaded place (but not under the shade of trees). In the bottom put 6 ins. or 7 ins. of clinkers, and on the clinkers a good layer of leaves to prevent the soil getting into the drainage. Then fill the box, to within an inch or two of the top, with sieved soil and sand. Make fairly firm, and put a layer of sand on the top. If the sun is hot at first, shade with newspapers supported on canes stuck in at the corners of the box. Cuttings will strike readily and can remain in the frame until next spring.—K. Z. J.

INDOOR PLANTS AND FLOWERS

239. *Early Flowering Shrubs for Decoration.*

A most attractive means of decoration is afforded by bringing indoors branches of spring-flowering trees and shrubs. A large number of subjects are suitable, but the cherry, either wild or ornamental, the almond, Persian plum, Japanese quince, double peach, ribes, and forsythia are especially to be recommended. When cutting the branches, take care to select those that have plenty of flower buds. The buds that will produce blooms are blunter and stouter than those from which only foliage will come. From the lower end of each branch pare away a few inches of the outer bark, to aid the absorption of moisture. Fill jars with water, put in the branches, and stand for a short time in a rather cool and dark place. After about a week remove the branches to a sunny room. It is remarkable how rapidly the buds expand, and quite soon the sprays are delightful to look at. Some sprays of horse chestnut and sycamore may also be treated in the same manner, and their vivid green foliage contrasts more attractively with the flowering branches.—H. G.

240. *To keep Berries for the Winter.*

Winter berries and hips and haws can be kept without shrivelling for many months if painted over with good liquid gum. I have tried this successfully.—G.

241. *Making the most of Irises.*

These charming flowers are very transparent, and if placed in such a position in the room that the light is *behind* them, a wonderful brilliance is added to their beautiful colouring. This arrangement makes a remarkable difference to many flowers, but is particularly noticeable with the lovely June-flowering irises.—A. Y.

242. *For Flower Arrangements.*

I have found that a small, square wire netting (of small mesh) is most useful when arranging flowers. It can be

obtained at an ironmonger's for a few pence, and cut to the desired size. I generally get a piece twice the size of the bowl I use most and turn the sides in, so that it is the shape of a tea-cake. The stem of the flowers are thus secured at the bottom of the bowl instead of sliding about, as they often do with a wire cover. Another advantage is, the wire can be made to fit any bowl. It is splendid for small flowers like crocuses, etc., when just covered over with moss.—R.

243. *Don't's for House Plants.*

Don't wash plant leaves with oil.

Don't use unwashed pots—they spread fungus.

Don't let ferns stand in water.

Don't cultivate the soil-surface in pots deeper than $\frac{1}{4}$ in.

Don't take cuttings with a dull knife or with scissors.

Don't let begonia plants stand in water, or the roots will decay and the leaves drop.

Don't let plants get bone-dry.

Don't try to grow any plant in the dark end of a room. Light is necessary to make green leaves.—G. G.

244. *On Flower Show Table Decoration for Amateurs.*

1. Some time beforehand choose flowers and suitable bowls or vases with supports. Clean and polish.

2. Mixed colours, if well chosen, are usually more attractive than single colour schemes.

3. Gather young flowers overnight after sundown and put in cold water in dark cellar.

4. If possible take flowers to show tent in water. Allow sufficient time to arrange (one hour).

5. Aim at lightness and freshness. Table should be covered (*i.e.*, do not allow for places set).

Centre bowl should be higher than surrounding vases for best effect, though not high enough to obstruct view. Foliage light and in keeping with flowers.

Flower heads or foliage are usually more effective than a table-centre on the compulsory white cloth.

6. *Colour schemes.*—Shades of lemon, orange, red, and russet. Orange and delphinium blue, etc.—E. H.

245. *How to make the Fireplace Beautiful in Summer.*

Most houses have a fireless grate in one or more of the rooms during the summer. They may be transformed into the most artistic, fragrant, and coolest looking spots in the whole house with a little care. In the spring ferns should be planted in wooden baskets and earthenware pans; these make a green luxuriant background. The taller ferns are best actually placed in the grate itself, and others in front soon hide the bars once their fronds unfurl. Violas planted in round bowls make a brave show for months. As some of the pot plants come into flower in the greenhouse or cold frame, a few may be borrowed for the enhancing of the miniature conservatory. Last year we had lilies, petunias, gladioli, mignonette, clarkia, heliotrope, and begonias making a feast of colour and scent. They were more delicate flowering, the gladioli especially, than when grown in full sunshine. Water carefully, and apply soot water to the ferns.—C. E.

246. *When cutting Clematis.*

Clematis lasts well in water if, immediately on being cut, the ends of the stems are burnt with a match or candle flame. If this is not done, the flowers droop very quickly.—F. W. D.

247. *Bulbs in Bowls.*

For covering the bare soil, or fibre of bulbs growing in bowls, nothing is better than *Arenaria montana*—it is far preferable to moss. Simply pull off pieces growing over your stones in the rock garden and it remains green all winter.—P.

248. *More about Bulbs in Bowls.*

For several years I have grown narcissus and daffodil bulbs most successfully in bowls, putting in a large handful or more of *dead leaves*—oak, beech, or lime—then fibre or fine soil. I always keep the soil well watered but not too wet, and find when turning out the bulbs after flowering that they have made most healthy roots amongst the dead leaves, which act as a natural drainage. I have also grown tulips, etc., in moss in ordinary glass fruit dishes; they make a very pretty table-centre.—B.

249. *Fibre for Bulbs in Bowls.*

One potent cause of failure with bulbs grown in bowls is that the fibre is not properly moistened in the first place. When dealing with small quantities, a bucket may be half filled with the fibre, then rain-water added to fill the bucket to the top. In a few hours the fibre will be found to have absorbed all the water, and though in this state it is probably too wet, it is an easy matter to squeeze out all superfluous moisture with the hand. The right condition is attained when only a few drops of water fall out when a handful is squeezed. With larger quantities, it is more convenient to soak the whole sack of fibre in a tub of water for some hours, letting it drain a day or so before using.—S.

250. *Floating Bulb Gardens.*

A pretty little novelty for the indoor garden is formed in this way. Get one or two flat corks, or some pieces of virgin cork. Make holes in these in which the bulbs of crocuses, scillas, etc., can be inserted. The bulbs should be arranged so that the portion from which the roots come is well to the under side of the cork. Fill an ornamental bowl with water and then float the corks on the surface. Keep the bowl in rather a shaded place for a time and, if a lump of charcoal has not been placed in the water, change every ten days. When the bulbs are sending down their roots freely into the water bring the bowl into a warm sunny room. Then scatter grass seed thickly on the tops of the corks or cover with bright green moss.—F. C. W.

251. *Christmas Decoration : A Poppy-head Idea.*

Evergreen foliage, or autumn-tinted leaves and berries, are extremely decorative in the house when fresh flowers are scarce. If the sprays of leaves and berries are painted over with ordinary shellac, the leaves last indefinitely and do not dry up, neither do the berries swell and burst with the heat of the room, as is generally the case. One of the prettiest effects I have ever seen was above treated leaves falling in graceful sprays from an old earthenware jug. Giving a bright touch of colour, and enhancing the green, were some large poppy heads, which are treated as follows. (The heads are bought for 1½d. each at any chemists.) Place in boiling water and if whole, when dry, paint over with poster paint, or gild.

If open—as some usually are—cut where soft between the ribs of the head. Cut off the crown and place it with pin inside. Put fingernail under the ribs and pull gently, snapping away soft flesh of poppy. The extremely pretty result is stamens. Allow to dry, and paint over with poster paint, or gilt, or the two may be used in artistic combination. Push a stick of privet or any likely wood in stem. This mode of winter decoration is uncommon and beautiful, while the heads last for years without losing their freshness.—H. G.

252. *A Non-smelling Fertiliser for Indoor Plants.*

Saltpetre is a most convenient and handy fertiliser to use for the majority of plants which are grown in the dwelling-house—such plants as aspidistras, palms, campanulas, geraniums, etc. The best method is first to water the plants thoroughly and, when the surplus water has drained off, dust the surface with as much saltpetre as will lie on a threepenny piece, afterwards giving a slight watering to dissolve the fertiliser and wash it into the compost. The above quantity is sufficient for a plant growing in an 8-in. pot. Feeding of indoor plants should commence after the compost is full of roots and continued weekly during the growing season.—G.

253. *Hyacinths after Flowering.*

It may not be generally known by those who grow the specially prepared hyacinths for flowering at Christmas that if the bulbs are slowly and carefully dried off they will flower again equally as early the next season if potted in August, and although the blooms are, of course, smaller than the first season, they are very useful for vases as cut flowers.—W.

254. *Sending Flowers by Post.*

Here are a few simple rules to insure them arriving in good condition and lasting as long as possible. First and foremost, never send flowers directly they are picked. Always put them in water for several hours first. Pick in the early morning or the cool of the evening. Don't pick during or immediately after heavy rain. Choose a box that will only just hold them and pack as closely as possible. If possible, secure the stems to the bottom of the box by means of string. Line the box with tissue paper and put another sheet on top of the flowers. They should now arrive in perfect

condition, but in case of lengthy postal delay, tell your friends to plunge the stems into very hot water if they arrive looking limp, and they will revive remarkably well.—K. E.

255. *Preserving Beech Leaves in Autumn.*

Pick when turning brown, and stand in a mixture of one half water and one half glycerine. The mixture need only reach about 6 ins. up. When absorbed, the leaves have a perfectly natural appearance and keep for months.—M. H.

256. *Lobelia in Winter.*

At the approach of autumn I have always pulled up my lobelias and thrown away with other annuals. However, one year, I called on a friend just before Christmas and was surprised to see beautiful lobelias in masses of bloom growing indoors in a pot. They made a very uncommon and effective splash of colour, and my friend assured me that they had bloomed all through the autumn from the time she transplanted them from the garden. Now I have resolved to pot mine up in the same way.—D. W.

257. *To keep Pot Plants Alive while on Holiday.*

Place a pail of water on a pair of steps and beneath and around it as many pots as can be accommodated. Now tie as many pebbles as there are pots to strings and drop the pebbles in the pail, allowing each piece of string to hang over or lay upon a pot. The continual dripping will thus keep alive many plants that would otherwise perish. Adopt this method also in a greenhouse by using three or four strings to each pot.—B. P.

258. *Drying Flowers for Winter Decoration.*

To insure flowers suitable for drying for winter decoration retaining their original colour when gathered or bought, bunch lightly and tie, and put, heads first, into a large paper hat-bag or pin newspaper carefully around them not to crush them; the great object is to exclude all air, so see there are no holes in the bag. Gather ends of bag or paper to the stems, tie, and make a loop and hang in rather dark, dry place for a month. They will then be ready to arrange in vases. Sea lavender is a very good flower for drying in this way. Everlasting flowers (which should be gathered half open) and honesty also answer to this treatment.—N. W.

259. *Early Flowers for House Decoration.*

Cut off branches of lilac, etc., with good fat buds showing in spring. Place the branches in jars of water, with a little charcoal, to keep the water sweet. Put the jars in a dark, warm cupboard. Forget them for a few weeks. Then gradually harden to light and air, when there will be a nice bunch of blossoms long before they appear on the trees. Lilac, sloe blossom, and flowering currant can be treated successfully in this way, and other shrubs would probably respond to this treatment.—M. A.

260. *Artistic Arrangement of Flowers.*

Gladioli are best grouped with their own foliage in bronze vessels. They last well and their buds open in succession. Montbretias, with their art shades of colour, are equally effective if similarly arranged. Then again, *Viola cornuta* lends itself to the best advantage when placed with its foliage in a small brown jug. Chrysanthemums and Michaelmas daisies should be cut with long stems and placed in tall receptacles, so as to avoid stiffness. No matter what kind of vessel is used, nothing of a decorative character should be utilised which would detract attention from the flowers themselves. Soft neutral brown is always harmonious.—A. L.

261. *Hyacinths in Bowls.*

When growing hyacinths in bowls, the flowers sometimes start to bloom very close to the bulb. Make a paper cone of black or brown paper, cut off the top to admit light, and place it over the bud. The flower stem will then be drawn up.

B.

262. *Keeping Gladioli as Cut Flowers.*

I have found that when cutting gladioli for indoor decoration it is a good plan to cut the stalks in the afternoon, as long as possible, and with only one or two flowers out. The flowers last much longer, and stand better in the water if they are put out in the sun when cut for five or ten minutes out of water, to soften the stems, and then placed in the vases.

M.

263. *How to repot Aspidistras.*

No other room plant is so universally grown as the "Parlour Palm." It likes the shade, and can, therefore, be

grown away from the direct light of the window, thus allowing the life-giving sunshine to enter the room.

Spring is the time to repot aspidistras or any other room plant. To do this knock the plant from the pot by inverting and giving it a sharp tap. If the soil is very full of roots, a larger pot will be required. Clean, dry pots and crocks are essential. Put a few crocks, concave side down, over the drainage hole, cover with a few decayed leaves (or turfy soil), and over this put a handful of soil. Cut away any dead roots from the plant, shake away the old soil, place in position in the pot, and fill in soil all round the ball. Ram with a stick to make it fairly firm, leaving the soil-surface about an inch from the rim of the pot. Water by immersion in a pail of tepid water. No further watering should be required for a few days. Sponge the leaves occasionally and the plant will soon make new leaves and put on a glow of health.

264. *Everlasting Flowers.*

L. B.

Everlasting flowers should be cut before fully open. Stand them in water for four days, then tie in bunches and hang, head downwards, in a cool, airy shed. A current of air is necessary, otherwise mould will appear.—S. W.

265. *Shirley Poppies for Decoration.*

Shirley poppies, although so graceful and brilliant in colour, are little used for table decoration, because they are so short lived. If, however, they are picked in the morning, while the stamens are still yellow, and the ends of the stalks are dipped into boiling water, the flowers will keep in perfect condition for forty-eight hours.—G. C.

266. *Maidenhair Ferns in Winter.*

Those who have a few maidenhair ferns that they would like to keep through the winter and yet have no warm greenhouse may do so by cutting off all the fronds and plunging them outside exactly, and in the same way, as they do bulbs, and leave them there till the first of April, then bring them out, wash the pots, and take them indoors. As soon as they have started is a good time to pot on if they need it. I have done this for several years and they came out as fresh as paint. So far I have only tried *Adiantum cuneatum*, but I dare say other varieties would submit to the same treatment.

G. F.

267. *Longer Life for Maidenhair Fern.*

If maidenhair fern is put into a pail of water with the stalks upward for an hour before being arranged with flowers, it will keep fresh for several days.—C. T.

268. *Summer Flowers for Winter Decoration.*

In the following way you can have most effective flowers for winter decoration when cut flowers are scarce and costly. Pluck montbretias when in full flower and press carefully between sheets of blotting paper. Gather purple sea lavender and hang up to dry. The two are most effective when mixed in a cut-glass bowl, and afford a brilliant patch of colour on a dark day. Both can be grown by the amateur gardener.

H. F.

269. *Eschscholtzias as Cut Flowers.*

Eschscholtzia are not generally considered satisfactory as picked flowers, but if they are picked in bud and when the little "extinguisher" is either just off, or just coming off, they will last for days in water. In the evening they open under artificial light, and make a charming, graceful bunch.

D. B.

270. *Glittering Holly.*

To give holly a frosty glitter for table decoration, make a thick solution of kitchen salt with warm water. Paint the holly leaves thickly with the solution, and dry before the fire or in a warm place.—H.

271. *Keeping Cut Flowers.*

A method of keeping cut flowers, especially those, like daffodils, with long, slender stems, which I have found to be fairly successful, is to arrange a layer of damp sand about 2-3 ins. deep, stand the flowers in this, and cover with an empty glass jam-jar or another glass shade. I keep them in a cool place where there is no risk of frost. The sand should be kept moistened.—H. E.

272. *Window Boxes.*

People who like to have gay flowers in window boxes often complain of the mud specks on the window, caused by the rain splashing on the soil. This trouble is easily overcome if the mould in the window box is covered with a layer of coconut fibre, which can be inexpensively obtained from

any florist. Incidentally, the fibre prevents the escape of moisture, so the roots of the plants are kept cool and damp.

R. G.

273. *Growing Small Bulbs Indoors.*

A good way to grow small bulbs, such as snowdrops, etc., is to put a glass block (used for supporting cut flowers) in a bowl, and place a bulb on each of the holes. Pour water into the bowl so that it scarcely touches the base of the bulbs. This is similar to growing hyacinths in glasses, but the small bulbs growing in a cluster are very attractive.—P.

LAWNS

274. *Weeds on Lawns.*

The time arrives when dandelions and plantains make themselves noticeable and a great disfigurement on the lawns. That is the best time to deal with them. Take an ordinary mower oil-can, and apply weed-killer from it direct upon the heart of the weed, and certain death will follow. The weed will die away, and before the summer the bare patch left by the plantains' departure will be recovered by the grass. Place a piece of stick into the spout of the oil-can so that the weed-killer drips out about as fast as you can count.—W. H. L.

275. *More about Weeds.*

To eradicate dandelions, docks, and other weeds on lawns without disturbing the grass, take a sharp knife and cut the weed off about 1 in. below the surface of the grass. Remove all the cut part and fill up with salt.—J. D.

276. *Another Remedy.*

Many lawn weeds, such as the buttercup, have swollen turnip-like roots which anchor the plant and make removal difficult. I have found the homely apple-corer the most effective extractor of such roots. Place the "nose" of the corer centrally over the root, and a downward thrust of about an inch will find the root safely in the tube. When the ground is wet and soft, the remainder of the root easily follows. Sifted loam mixed with grass seed will fill up the holes.

277. *And yet Another.*

W. P.

Early autumn is the time to rid the lawn of weeds, such as plantains and daisies, and the following plan is most satisfactory: Cut off the heads of plantains so that the stems are left to bleed. To avoid back-bending, tie the handle of an old knife to the end of a walking-stick, inserting a piece of wood between to make it secure. Afterwards run the roller over the lawn to level it down, and in the spring plant grass seeds in the empty spaces. For the daisies, cover with silver sand;

the grass will work its way through, but the daisies will disappear.—E. N.

278. *Charlock on Lawns.*

During the latter half of April and early May I sowed down two new lawns. The ground was, the previous year, part of a cultivated field. The weather was ideal for the young grass; however, a common field weed, charlock, made its appearance, so as to form practically a mat over the whole surface. Hand-weeding appeared a hopeless task; but the following proved an efficient remedy in destroying the charlock without undue harm to the young grass: Dissolve 6 oz. of copper sulphate in a gallon of water, using hot water at first to assist in dissolving the green crystals. Avoid metal pails, using only wooden or earthenware vessels. Spray the solution when cold over the affected area, using a fine misty spray, and during a dry and sunny period for preference. In the course of a day or two the charlock begins to shrivel and die. If possible, spray the charlock when young, using approximately 1 gallon of spray to 50 sq. yds. of lawn.

J. W. H.

279. *Seedling Weeds.*

No matter how assiduous one may have been throughout the year in ridding the lawn of the more conspicuous weeds, a careful search among the grass at this season will usually reveal innumerable tiny seedling plantains. These must be eradicated while still small, as they grow apace and will be shedding seeds in the late autumn. Weeding forks, knives, etc., are useless in the case of seedling weeds, but I have found that these are most easily removed by means of a steel potato scraper. By inserting the point in the turf close to the seedling and depressing the handle, the rootlets are loosened and the plant can easily be drawn out with the fingers without causing any disturbance of the turf.—H. H.

280. *Earthworms in Lawns.*

To prevent earthworms doing serious damage to a fine lawn, apply sharp, gritty sand in December and January. This will send them into the lower strata, where they will do no damage and yet assist drainage, aeration, and tilling of the soil. To remove them altogether, water after a showery day with a strong solution of "Abol" with fresh lime water.

Or, with the more efficacious but deadly poisonous corrosive sublimate (1 oz. in 30 gallons of water applied from a watering can), the worms, being then near the surface, will come out of the ground immediately. Sweep them off in an hour or so and keep the dead worms back from fowls, especially if the corrosive sublimate has been used.—S. E. L.

281. *Worm Casts on the Lawn.*

One of the most efficient devices for breaking up worm casts on the lawn is made in the following simple way: A moderately sized piece of wire netting is obtained, and through this are threaded three fairly heavy iron rods, one at each extremity, and one in the centre. A hook is then attached to one of the outermost rods, and a length of rope again to this hook. The use of this device is obvious. When it is dragged by the rope along the lawn, the wire netting catches and breaks all worm casts, while the iron rods keep the implement weighted down. By using this "pulveriser" a lawn may be treated in one-tenth the time taken up when using a besom, and the work is done quite as thoroughly. A suggested size for use on a small lawn is 18 ins., by 36 ins., but, of course, this may be varied as required.—B. D. S.

282. *A Use for Lawn Mowings.*

Lawn mowings, instead of being thrown on the refuse heap, can be utilised as a mulch if dug into the soil round the base of rose bushes, shrubs, etc.. If left on the surface, they also serve to keep the soil and roots cool during the hot weather.—H. C.

283. *Sowing Lawn Seed.*

My system of sowing lawn grass seed is to have two lines with a stick on each end 1 yd. long. Then I measure a pound of seed in a box and lay a piece of cardboard to fit inside on the top of the seed; I next make a pencil mark on the top of the cardboard so as to know when I have a pound of seed without weighing. I measure 16 yds. in length—that is, for 1 oz. to the yard—then I sow my seed between the two lines. In this way, if you sow your seed up to each line, it is bound to come up evenly and not patchy as one sometimes sees it. Of course, the ground is prepared in the first place, and after sowing, the seed is lightly raked in and rolled when dry.—W. L.

284. *How to Equalise Lawn Seed Sowing.*

Make a light framework of four pieces of thin wood, each side measuring 1 yd. Measure the dressing or seed out in portions according to the amount required per square yard. The framework can then be laid on the lawn and the application of dressing or seed can be proceeded with yard by yard until the work is completed.—F. V. G.

285. *When making a New Lawn.*

There are probably a number of gardeners who, when intending to put down a new lawn and unable to afford the cost of turf, sow seed in September. It is a good plan to obtain sufficient turf to edge the site of the lawn and then to seed the remainder, after, of course, making up the ground to the level of the top of the turf. A firm edge is thus obtained without using boards or tiles to retain the earth. I find that this is also a great aid in obtaining a level surface for sowing, particularly if the proposed lawn is fairly large.—E. C. E.

286. *Renovating Turf Edges.*

To renovate edges of turf that have become frayed and broken, mark off with a spade or turf edger a strip of the turf about a foot wide containing the broken edge in one piece or several, as may be convenient. Detach it from the ground by slipping the spade under it. Move it forward until it projects a couple of inches or so beyond the line of the desired edge, press well into position, and make your new edge. Gather the pieces cut off and place them in the space left vacant when moving forward the turf, then fill up this space with soil well pressed (or rolled) down to the required level. You have your new clean edge at once, and in a very short time the grass will have grown over the little patch.—M. A. S.

287. *Another Method of repairing Turf Edges.*

From various causes the edges of lawns and borders are apt to lose their even outline, and as the defect is most noticeable, there is a general desire to repair it effectively. If small pieces of turf are used they will not remain long in position, and if the difficulty is overcome by using pegs, the job is rarely satisfactory. The best and only reliable method is to remove a square of turf, including the damaged part, and turn it round so that the straight edge is outside. The broken

portion can then be repaired with a little fresh turf, if necessary, and the object in view accomplished with complete satisfaction.—C. J. C.

288. *A Useful Tool for Lifting Turves.*

Those who wish to cut some turves from the lawn for relaying and do not possess a specially made tool for the purpose, will find the following a very efficient tool. Get a Dutch hoe (solid type), which must be sharp and in good condition, put in a fairly stout handle from 4 ft. to 5 ft. in length, according to the comfort of the user, a steady pushing action must be used and it will be found that the thinness of the blade, and also the crank, will make it a comparatively easy job to cut turves perfectly even, which is so necessary when they are wanted for relaying purposes.—W. E.

289. *A Lawn Hint.*

Where the lawn runs alongside the house wall or tennis boundary net, etc., one often sees a ragged line of grass which is difficult to deal with, as the mower will not reach it. Far better than laboriously clipping this is to remove a strip of turf about 3-4 ins. wide along the walls, etc., so that a hoe can be run along periodically, thus maintaining a neat appearance always, with the minimum of labour.—F. T.

290. *A Home-made Lawn Sand.*

Lawn sand is a mixture which is employed to assist the growth of grass on a lawn and at the same time to keep down weeds. The active ingredient of these sands is either sulphate of ammonia or sulphate of iron. Some "sands" contain as much as 30 per cent. of the former. Sulphate of iron mixtures are more useful for killing weeds and giving the grass a rich colour than for uses as a manure. These sands can be bought in prepared form with full directions for use. A good lawn sand can be made by mixing $\frac{1}{2}$ lb. of sulphate of iron (known as "copperas"), $1\frac{1}{2}$ lb. of sulphate of ammonia, and 10 lb. to 15 lb. of any kind of sand, grind the chemicals into a fine powder and mix thoroughly. The cost of this quantity, excluding the cost of the sand, will be about $7\frac{1}{2}$ d., and it will prove a rich manurial substance which is able to kill daisies and other weeds. Spread it evenly over the lawn at the rate of 2 ozs. to 4 ozs. per square yard, or dust some into the heart of each weed to kill it.—G. R.

291. *An Economical Means of using Lawn Sand.*

Owing to the price of lawn sand, I find the following method most economical : Mark off with a garden line a strip 6 ft. wide of lawn and with a large cocoa tin (1 lb. tin) filled with lawn sand, squeeze the tin so as to form an oval shape, and just drop sufficient sand on each weed. Follow with successive strips until the whole lawn is dealt with. It is surprising how far a hundredweight of lawn sand goes if used in this manner.—A. W. M.

292. *Marking Tennis Courts.*

When marking out tennis courts, mix the whiting to a stiff paste with linseed oil, and then add enough water to make a smooth cream. Go over the lines twice, first one way then the other. Even after repeated drenchings the lines will remain visible for weeks.—J. H. Y.

293. *Moss on the Lawn.*

Moss often disfigures a good lawn, and it is such a bad weed that if left unchecked, it will gradually choke out the grass and ruin the lawn (or tennis court). In early spring take a rake with short teeth, and tear as much of the moss out as possible. Scatter sulphate of iron over the lawn at the rate of $\frac{1}{4}$ oz. per square yard, or dissolve the requisite amount for the size of the lawn in water and spray it over the soil. In April spread a little sulphate of ammonia, or nitrate of soda, 1 oz. per square yard, on the ground, and the grass will grow beautifully green, while the moss will disappear. A lawn badly overgrown with moss may require treatment the second spring, but this is very seldom the case.—S. E. L.

294. *Soot for the Lawn.*

I have found the best treatment for a poor lawn with daisies and other weeds is to give it a liberal dusting with soot, which should not be new, otherwise it may burn the grass. This treatment should be done during early spring with the dew on the grass, and you will find that the colour of the grass is improved and the daisies, etc., do not make their usual appearance afterwards.—E. P.

ROSES AND SHRUBS

295. *On setting Rose Trees.*

When setting new roses, take up a sod of grass, about 6 ins. square, and place, grass downwards, at the bottom of the prepared hole. Spread the roots out on this and finish setting in the usual way. Not one rose has died since trying this method.—D. A. T.

296. *Supports for Young Shoots.*

When tying up the shoots of roses or clematis or any climbing plants, do not tie them tightly to the support, but cross the twine or raffia loosely at the back of the shoot before fastening to the support. This keeps them quite secure without pressure, which often causes a young shoot to wither and die. In the herbaceous border, too, this is the best way.
E. N.

297. *When staking Trees.*

When staking rose and fruit trees and generally making trees secure for the winter, be sure to place a piece of felt or cloth between the stake and the stem. This will prevent the former damaging the latter.—N. P.

298. *Clematis and Roses.*

Grow clematis amongst roses on the pergola or poles, or even in groups of roses on the bank or grass. They flourish and are much happier with something to ramble over, and they bloom before the roses, and again afterwards. The following go well together :

Clematis Perle D'Azure with rose Caroline Testout, clematis M. Ed. André with rose Karl Druschki, clematis Lady Northcliffe with rose General McArthur.—W. T. S.

299. *A Hint on Manuring Roses.*

Liquid manure prepared from half a peck of fowl droppings and a similar quantity of soot, placed in a sack or bag and

immersed for a week in a barrel or cask of water, applied at the rate of a gallon each tree once a week will be of great benefit. Should the weather be dry, give each tree a good soaking of clear water first, before applying the manure.—G. D.

300. *How to tie Small Trees and Shrubs to their Supports.*

Strong gales are often experienced in autumn, and a lot of damage is done to standard rose-trees, half-standard rose-trees, small shrubs, and also small trees by simply tying them with naked string to their supports. The trees get blown backwards and forwards, causing the string to cut into the bark of the tree, bruising the stem of the tree and causing it to bleed. The result is death to the tree, or canker. Get a piece of old water hose-piping, cut it into pieces 1 in. long, then cut down one side of it, pull it open, then slip it on to the stem of the tree or shrub. This will form a rubber band. Tie the string twice round the band, then fasten it strongly to its support. This will prove valuable to all.—B. R.

301. *Planting Rose Trees.*

A point frequently overlooked is the importance of letting the roots rest on a firm surface which, after being well dug or stirred, should be trodden thoroughly. Most people tread the surface when the tree is planted, but forget that the loose earth covering the roots, having no firm foundation, cannot be pressed closely to them, as it should be. In addition, I would say: do not plant in frosty weather; do not let any manure—even if rotten—come in contact with the roots; and do not plant too deeply, just enough to cover the collar at least 1 in. but not more than 2 ins. Lastly, make the hole sufficiently wide so that the roots can be spread out as far as possible.—A. H. C.

302. *Prolonging the Supply of Roses.*

In cutting roses, either for the house or in removing dead ones, it is important to cut back a good distance, at least 6 ins. and past any spent shoot, to a visible bud in the angle of the leaf. This is practically summer pruning. The tree responds at once by sending out a flowering shoot, which flowers in a marvellously short time. By adopting this plan

of never "nipping" off dead flowers, my rose supply is continuous from June till late autumn.—M. R.

303. *Rose Cuttings.*

When making rose cuttings, see that each cutting has five leaf buds, three to put underground and two above. A cutting will seldom be lost if this method is employed.—X.

304. *More about Rose Cuttings.*

October, I find, is quite a good month for the work. Cuttings of fully ripened wood are taken, about 8 ins. long and stout in character. See that the heel of older wood is neatly trimmed and no frayed edges left; and lastly—and to this I attribute my great success—see that the *top of cutting* is *cleanly cut* with a sharp knife just above an eye, as carefully as in pruning roses, so that no snag of wood remains that has no suction power, as it invariably rots and causes the die-back. Plant two-thirds of length in ground which is well mixed with sand, tread firmly in and make surface loose, and then success is assured.—R. G. L.

305. *The Value of Stones in assisting Root Formation.*

When striking outdoor cuttings of many plants, roses included, I have found the use of flattish stones, pressed firmly about their base, excellent in result. Not only do the stones keep the soil in an evenly moist condition, but they prevent disturbance from birds. Shrub cuttings put in a sunny corner strike with great success. In such a situation the warmth keeps life in the cells above ground and the firm, moist earth assists energies below. When top-dressing plants in rock borders stones were laid here and there upon the fresh soil. It is, of course, not necessary to retain them permanently. An interesting mesembryanthemum (*M. equilateratum*), sent me from Cornwall, where it grew wild on cliffs, responded in an extraordinary way to this method. Planted on a sunny slope, it sent out long shoots and flowered in what would have been considered an impossibly short period. Again, a cutting of one of the shrubby veronicas and two shoots of this mesembryanthemum were potted in some fairly light composts in a 3-in. pot and three small flat stones were packed on top. Both plants have successfully rooted.—M. C.

306. *Erecting Pillars for Roses.*

When erecting the posts for these roses, get a 6-in. drain-pipe and sink it into the ground where you intend to plant. Fill in the bottom of the pipe with fine ashes, 4 ins. deep, then drop the post into the pipe. Now get some Portland cement, mix it to a liquid with water, and fill up the pipe. When this dries, the post will be held perfectly firm, will not rot, and will stand the wind and weather for many years. I have found this a great success.—A. C. C.

307. *A Quick Way of striking Polyantha and Rambler Roses.*

Take short leafy cuttings, about 6 ins. long, and lay in a box of damp moss an inch deep, pressed fairly firm at the bottom, with the cuttings lying on a "pillow" at one end with their lower half covered with more moss. Cover with a sheet of glass and put in a hot, moist heat—as in a cucumber house. Shade from very bright sun and keep damp. They will root into the moss in about six weeks.—R. D.

308. *Layering Rambler Roses.*

The usual plan is to layer a strong shoot of the current season's growth around the parent plant, but by sinking a large pot, filled with sandy soil, in the ground and pegging down the cut portion made in forming the tongue, as near the centre of the pot as possible, the greatest measure of success is assured. All the roots may thus be preserved with ordinary care in removing the plants from the pots for transference to permanent positions. In the ordinary way there is the risk of damaging the roots when lifting them, and much of the soil is displaced from among them in the process. Treated as advised, well established specimens are secured in the shortest possible time.—J. C. C.

309. *Propagating Rambler Roses.*

When rambler roses arrive from the nurseryman, cut the stems down to about 6 ins. in length before planting. This will allow the strength of the tree to go to the root and you get much better results than if the growth had been left. Insert the cuttings in sandy soil, and you will find that even in November or December, if the ground is not hard with frost, they will take root and make good trees in a couple

of years. Two beautiful ramblers that lend themselves to this treatment are Albertine and Papa Ronillard.—E. M. S.

310. *Pruning Rose Trees.*

In pruning rose-trees of four or five years' standing that have never been cut before, tip lightly in November. In early March cut the shoots harder, and in April tip lightly. I have had very good results by this method of pruning.—B. W.

311. *Rose Bushes and Pests.*

Very early in the season the attack by caterpillars and grubs on rose foliage commences. There is no question that hand-picking is the best protection against these pests. All rose trees and bushes should be searched, every day if possible. Whenever any of the foliage looks out of shape make an immediate examination. The best plan is to squeeze the bunch of leaves at once firmly, but not hard enough to crush them, or the enemy may slip away and escape. Open any leaves that have been closed carefully and, if not too badly damaged, they may be allowed to remain. Never fail to examine any leaf on a rose that does not seem to be in quite a normal state.—S. L. B.

312. *The Pruning of the Rambler Rose.*

Great mistakes are often made when pruning rambler roses by leaving too many old branches in the bush. Young ramblers, when planted the first season, should have all the weakest growths cut out close to the ground, and the next season several young, strong growths will appear; this will enable the grower to cut out old branches left from its first season's growths. By the fourth season there will be sufficient young growths, so as to enable one to cut out all old branches and tie nothing but new branches in.

Pruning in this way, you have always got a good, strong, healthy rambler and large trusses of blooms. They also require liberal soakings of manure water or soap suds from the wash tub.—B. R.

313. *Training Ramblers.*

When training ramblers to posts or rustic archways, I always find white string the best, as tar string always seems to burn the young growths.—R.

314. *More about Training Ramblers.*

When training rambler roses on arches I find it a good plan to stretch a piece of wire netting over the top of the arch. This should be attached to the woodwork of the arch by means of wire. It prevents the shoots from falling through the top in summer and adds much to the neatness of the arch.—B.

315. *Rambler Roses on Poles.*

This is a good method, I find, for the training of rambler roses on poles. After taking down the roses and cutting out the old growths and weak shoots not required, I lay out new shoots on the ground, to get them into their different lengths. I then commence with the shortest shoot and twine it round the poles, and follow on with the longer lengths, so that each keeps the other in position. The longest shoot is kept secure by putting a piece of tarred twine round the post. If some of the shoots do not seem secure enough, a piece of twine may be put lower down: I think this is a quicker method than putting bands of twine round poles and tying each shoot individually, as it saves a great amount of twine when a large number of roses have to be dealt with on poles, and it is much more natural-looking. When roses are trained by this method it is just a case of cutting the twine when roses have to be taken down again, and they come away quite easily.

W. J. B.

316. *Strong and Lasting Pergola Posts.*

The work of making a rustic fence or a pergola is generally carried out during the late autumn and winter months, and a simple but effective way of building either of those structures is given here. Take out holes about a yard deep, place flags at the bottom, and on these stand large drainpipes, collar down. Cement around the drainpipe and just over the collar. When the cement is set put back the soil into the holes around the pipe. Then get your posts, place them in the drainpipes, and fill up each pipe to the top with cement. The rims of the pipes should stand 6 ins. above ground level. These posts will form an excellent foundation for the fence or pergola, and in a day or two, when the cement is quite firm, the crosspieces can be attached. I built one of these lines nine years ago, 23 yds. long, 9 ft. high,

and not a nail put in since, and it has to hold a tremendous weight.—W. M.

317. *More about Pergolas.*

Wood posts always decay where they emerge from ground, even if creosoted, etc. To preserve indefinitely, cut sheet lead 8 ins. wide, long enough to encircle post and overlap 1 in.; along one edge of lead smear "Ferotax" (or other plastic preparation for repairing leaky roofs) 1 in. wide. Wrap lead round post with "Ferotax" edge upwards and inwards and 4 ins. above the ground. Use copper nails round top edge and overlap. Hammer edges close to wood. New posts: Sink in ground 9 ins. old drainpipes, top edge 6 ins. below surface. Place post down centre of pipe and fill in cement, trowelling to a cone from top of pipe upwards and inwards to post. The lower edge of lead band should overlap this cement cone. I have a pergola twenty-five years old, built in wood in this way, and not touched in the meantime and perfect now.—G. M.

318. *Fastening Climbers.*

Much time is gained if fasteners can be prepared beforehand. Take an old legging, boot, or other leather article and cut strips about 1 in. wide. Cut these into varying lengths from 2 ins. to 3 ins. Punch a hole each end. Through one of these holes pass a piece of soft wire, bent hairpin fashion, then bend over the ends and bring them through the loop and pull tight. When using, pass the leather round the stem and bring the two strands of wire through the unengaged hole, thus encircling the stem with leather. Fasten the wires then to trellis, nail, or other support. You will be surprised at the amount of fastening up that can be done in an afternoon if this system is adopted, and the fastenings are safe and comfortable.—N. D.

319. *Propagating Clematis.*

The most successful way of propagating clematis is by taking what are known as internodal cuttings—that is, cuttings halfway between two joints. One cutting should contain at least two nodes, and they may be inserted in a sand frame with mild bottom heat, either in July or August. After rooting, the plants can be placed in pots and grown on there until required for permanent planting. When planting out clematis I find it is inadvisable to spread out the roots; they are best planted in a ball.—T.

320. *Propagation of Clematis by Cuttings.*

Cuttings from most clematis may be struck in spring, by means of short, young shoots with a piece of old wood attached to form a heel. The sappy shoots alone will not strike, as they shrivel too quickly. Insert cuttings in a cold frame to insure success and give air when necessary to avoid damping off. They can also be struck in summer (June or July), but frame light should be shaded from fierce sun. Cuttings require to be kept fairly moist, and succeed best in loamy soil, mixed with sand. A little leaf-mould may be added, but too much seems to cause the callus to rot. Pot up when struck, as this insures good root growth.—V. W.

321. *Failure of Clematises.*

When large-flowered hybrid clematises are planted against a hot, sunny, south wall, trouble often ensues if the sun is allowed to beat upon the base of the plant. Weak puny growth that is apt to shrivel and collapse is the usual form the annoyance takes, and often the plants will die off altogether in a year or two. To obviate this nuisance, assuming, of course, that other conditions are favourable, moderately tall growing shrubs or perennials should be planted in front of the clematises. The benefit of the shade thus given is soon apparent, and strong healthy growth, with abundance of blossom, is the natural result.—D. S.

322. *Propagating Winter Jasmine.*

It is well worth while remembering how freely the yellow winter jasmine (*J. nudiflorum*) will reproduce itself by means of self-layered branches. Even if these are merely lying on the surface of the ground, they will root freely, and form nice little plants in a year or two. A well-established bush is almost sure to have anything from six to twenty-four of these young plants growing round it, and they may be severed and moved to more desirable quarters.

Early one year I moved about eighteen new plants formed in this way, and during the same year at least another half-dozen trailing shoots commenced to root.—S.

323. *Damaged Conifers.*

It sometimes happens that the top of a conifer gets accidentally broken out, thus spoiling the future shape of the

tree. A simple plan to follow, and one which I have tried successfully, is to make a clean cut through the tree below the break. Then cut off the tips of the surrounding branches. The tipping causes an extra flow of sap to the top of the tree, resulting in a strong break which grows straight up. In a short time this lead growing stronger than the branches makes a new top, completely covering the cut portion, and brings back to its shape an otherwise spoilt tree.—J. N.

324. *Planting a New Hedge.*

When planting hedges of *Cupressus Lawsoniana*, *C. macrocarpa*, *Thuya Lobbi* and many other subjects, after the trench has been prepared for planting, drive a stout stake about the height of the plants into the ground at each end of the trench, also at intervals of about 4 yds. along the trench. Take a length of stout cord, secure to end stake, and run along the row, putting a couple of turns round each stake, taking care to keep it tight, and secure it to the other end stake.—G.

325. *A Hedge of Beauty.*

When planting a hedge consideration should be given to its beauty. Three years ago I planted a hedge of *Cotoneaster Simonsii* and *Berberis Darwinii* alternately, and I think this is the most beautiful hedge I ever saw, and is much admired all the year round by all who see it. *B. Darwinii* is evergreen, with dark shining foliage, and clustered with rich orange flowers in April, followed by luscious blue berries (which, if wanted, make excellent wine). *Cotoneaster Simonsii* is a hardy shrub for autumn and winter effect. Covered with its beautiful tinted leaves in autumn, and brilliant orange red fruits or berries in winter, it cannot help but attract the eye. Both these shrubs can be obtained from any nurseryman at very little cost, and anyone following my plan will have a hedge of beauty in all seasons.—W. T. S.

326. *Planting Trees in an Old Shrubbery.*

The following method adopted by my father has proved so successful that I think it worth putting on record. When he wants to plant one of his cherry-trees (or any other kind) in a shrubbery fully occupied by long-established shrubs and trees, he gets an old raisin barrel from the grocer, knocks out

the bottom, and digs it into the ground on the desired site. The walls of this barrel enable the roots of the newly planted tree to get thoroughly established before the staves rot, in about two or three years' time. He has succeeded in establishing trees in this way in places where it would otherwise have been impossible to do so.—A. I.

327. *The Maidenhair Tree from Cuttings.*

Although plants of this peculiar tree, *Ginkgo biloba*, are usually grown from seeds imported from abroad and said to be the only means of increasing it, plants may also be grown from cuttings, if taken at a favourable time, in spring, before growth commences. Short jointed cuttings taken off in late March or April and inserted in sand in a cold frame, or covered with a bell-glass and shaded from bright sun, will emit roots before the end of August, when they should be transferred to small pots. Partly to sever the cuttings at a socket, or joint, by a gentle pull and allow them to hang on the tree until the wound is healed over, or forms a callus, will be found to be even more successful than the former method. The cuttings will be none the worse, and they will emit roots more quickly after being placed in the sand, than if they had been freshly cut and smoothed with a knife.—W. G.

328. *Leaves and Bracken for Mulching Shrubs.*

Large quantities of leaves and bracken should be carted to the shrubberies and spread evenly over the ground among rhododendrons, azaleas, viburnums, and berberis, which respond well to heavy mulching. Dry banks and slopes planted with shrubs should be liberally treated, and, to prevent the wind from blowing the leaves about, spread a thin layer of bracken over the leaves; this will hold them in position the whole season. Bracken by itself is a splendid material for mulching: it has no equal for plants growing on peat or sandy soils, and where plenty is available a quantity should be cut about the end of July and thrown into flat heaps so that rain can penetrate into it. By November this will have become partially decayed, when it can be broken up short and used for mulching young trees and shrubs. This autumn mulch will help to retain moisture and will destroy most weeds that persist in growing between shrubs.—H. W.

329. *Forethought when Planting Shrubs.*

When forming plantations of trees and shrubs, it is always advisable to look into the future and allow of ample growing room. This is neglected in many gardens owing to the craze for immediate effect. When ample room is allowed good use can be made of the section planted with trees, in that, to form an undergrowth and to protect the shrubs, many varieties of cuttings can well be grown without difficulty. What shade is afforded by the trees will serve to protect the cuttings during the dry spell of their first summer. I have found that all varieties of poplar, willow, and dogwood do well, while *Buddleia variabilis* and *B. globosa*, philadelphus, deutzia, ribes, and elders are just a few of many others that can be treated successfully in this way. The advantages of this method are that the ground is fully occupied by permanent trees and by cuttings which after one or two seasons' growth may be lifted for planting elsewhere. In the meanwhile extra protection is afforded to the young shrubs by the growths of the cuttings.—R. B. H.

330. *To obtain Skimmia Berries.*

Most garden lovers know that, owing to the unisexual nature of the flowers of *Skimmia japonica*, an isolated plant of this species cannot produce berries without artificial fertilisation—an operation which busy people generally overlook. It is not generally known, however, that by planting *S. Fortunei*, an equally attractive species, it is neither necessary to purchase male and female plants, nor to fertilise the flowers by hand, for every plant produces its crop of berries annually without the intervention of the gardener.—A. J. I.

331. *Propagating Shrubs Indoors.*

For those with little space to spare in the garden for cuttings of evergreen and deciduous shrubs the following is an excellent method of increasing stock. In the autumn or early winter months take as many cuttings as are required of strong upright growths of the current year, pull off all the lower leaves and place the cuttings in glass jars filled with water (jam-jars will do admirably) in a dim light indoors and leave there till spring, renewing the water from time to time to keep fresh. In February place in a window. By April the stalks should show a number of white roots from 2 ins. to

3 ins. long. Plant out in desired positions during April, when the rooted cuttings will soon make fresh foliage and within a year or so form well-shaped shrubs. I have increased aucuba, laurel, myrtle, euonymus, deutzia, weigela, pyrus (*japonica*), viburnum and many other shrubs by this method.—M. H.

332. *Moving Trees and Shrubs.*

When it is desired to transfer certain trees and shrubs to another part of the garden, a difficulty is sometimes experienced in carrying out the removal single-handed without displacing more of the soil from the roots than is desirable. Small trees and shrubs often have a considerable amount of soil adhering to the mass of roots with which they are furnished, and their future success largely depends on the care exercised when dealing with them in the circumstances referred to. A plan that may be adopted with complete success is to work a shovel underneath the roots, after lifting them, and, if properly balanced, the whole bulk may safely be drawn along the ground the required distance, by means of the handle. The weight will prevent the shovel slipping from underneath.—J. C.

333. *Hints on Planting Shrubs.*

If you intend to plant in autumn, or in early spring, any of the following shrubs, plant them direct from pots. Insist on plants from pots when ordering; it is courting failure to plant daphnes, cistus, fancy brooms, and some ceanothus taken direct from nursery lines. Insure success with *chimonanthus*, *eucryphias*, *enkianthus*, *osmanthus*, *Viburnum Carlesii*, by following the same lines.—W. G.

334. *Growing Holly for its Berries.*

Hollies grow best in chalky soil and when well-established furnish heavy crops of berries every year. When planting holly bushes in deep, loamy soil, cut large square holes, 4 ft. wide, 3 ft. deep, clear half of the loam away, then add chalk, mixing chalk and loam together in equal proportions, then plant firmly. Be sure the holes are hard and solid at the bottom. Large holly bushes, with no berries year after year, require root-pruning; cut a ring round the bush 4 ft. from the trunk and 3 ft. 6 ins. deep and cut all tap roots, then fill up with chalk or mortar rubble.—B. R.

335. *Propagation of Hollies by Cuttings.*

The best time of the whole year (from personal experience) is to take cuttings the first week in December, inserted under a bell-glass in the open. *Ilex insignis*, a most difficult subject, I was singularly successful with. Several people tried with me in friendly competition, but failed. I have tried at various times of the year, but the latter part was most successful.—J. M.

336. *Tamarisk Cuttings.*

I recently had occasion to propagate a quantity of tamarisk. This, by the way, is an excellent low shelter plant for exposed seaside positions. I first tried to strike cuttings from the young tips, but the result was not satisfactory and hopelessly slow. I therefore cut up some older stems, choosing those about a quarter of an inch in diameter, into 3-in. lengths. These were inserted in sandy potting soil and given a little bottom heat over the greenhouse pipes. Every one struck, and, what is more, the subsequent growth was compact and dense.—H. D.

337. *Propagating Rhododendrons.*

Dig deeply around the bush, adding liberally in equal proportions fine sifted peat and sandy soil, with a small quantity of silver sand. Secure fine two-year-old shoots, growing from the base of the bush. Bend down the shoot to find which is the best bud, touching the soil, take a sharp knife, cut through the middle of the stem, through two buds, making a strong lip, the same way as is done with carnations, then peg down with a strong 12-in. wooden peg, then place a good mound of the peat and soil well mixed up over the layers, keeping them well watered during the summer.

Good, strong, well-rooted plants should be obtained in two years. When well rooted cut away from the old bush. I have propagated hundreds in this way. Layering can be carried out during the spring in mild weather.—R. B.

338. *Trees and Sun Scorch.*

Cracks which appear in the bark of young trees upon their south or west sides are often due to the heat of the sun. It can make deep wounds, which sometimes cause death or stunted growth. Watch should be kept for such markings. When found, the wound should be cut back to the living tissue, and given an application of gas tar. These cracks are

most likely to occur after a spell of wet weather and warm sunlight, when the sap is juicy in the stem and the bark tender. It is always advisable to shade young trees if possible.—H. J.

339. *Success with Pot-Grown Azaleas.*

Amateur gardeners purchase these plants each year and find them useless after the first season. This is due to wrong treatment. After flowering, the plant should be taken into the greenhouse and regularly syringed to keep down thrips and encourage new growth. The shoots must be kept moist, by occasional soakings, if necessary. The plants should stand out of doors from June to September, in partial shade, and be taken in when frost threatens again. Thus treated, the plants will last for years.—T. H. H.

340. *Moving Hollies and Yews.*

Many people (including not a few nurserymen) make the mistake of moving these trees at the time other shrubs are shifted, in autumn or early spring. They can, of course, be moved successfully then, but a far better time is in late May. Prepare the new position first, then dig a trench all round the tree to be shifted and lift with a large ball of soil so as to disturb the roots as little as possible. Plant, treading in firmly. Well water after planting, and if the weather is hot, water each day, soaking the stem from the top of the tree downwards. Small trees can be covered with a cloth soaked in water if desired. If this method was more often followed we should see less of the sad spectacle of a row of yews (planted in the autumn) with many of their number dead or dying.
S. H.

341. *Pernettyas Fruiting.*

Having bought all my pernettyas when covered with berries, I was much disappointed when year after year I had no more fruit, though numerous flowers. Then came a hint that the plants were monœcious, and a visit last autumn to a doubting market gardener for the purchase of a plant without berries. I planted this near the plants I already had, and this autumn the trees are covered with fruit, with the exception of the last bought, which, though covered with flower in the spring, has not a single berry.—M. C.

342. *Pruning the Mauve Buddleias.*

It is surprising to see so many badly grown specimens of this beautiful shrub. It is so often allowed to grow lanky and weedy, which is absolutely unnecessary when pruned correctly. To grow this shrub to perfection it should be pruned most severely in the early spring—late February or early March. Cut it back to within six inches to a foot of the ground, when later in the spring it will send forth vigorous young growths, which will reach a height of eight to ten feet with flower spikes two to three feet in length in July and August. This concerns *B. variabilis magnifica* and *B. V. Veitchii* only, and not *B. globosa* (the orange ball). For although they have the same name and somewhat similar foliage, the latter's growth is quite different and requires different treatment.—J. G. L.

FRUIT

343. *On Planting Fruit Trees.*

On clay soils, the roots of trees often suffer from lack of air and have no power to resist dry seasons. A good way is to take out a hole 2 ft. 6 ins. to 3 ft. deep and nearly twice in width, then place a layer of hedge clippings or similar material 6 ins. deep, with a layer of soil of similar depth, then another layer of clippings and soil, then plant the tree in the usual way. Fruit-trees thus planted I find make wonderful headway and resist diseases so well that readers should try this way with a tree on heavy clay soils and watch results.—H. M. B.

344. *Spraying Standard Fruit Trees.*

A knapsack sprayer when carried on the back is useless for standard trees; one cannot get sufficient power. Get the wheels and frame of a water-cart, two pieces of quartering long enough to reach across the handles, place on these a strong box, nail to the quartering. On top of box place sprayer, fasten a piece of wood each side of sprayer to keep from moving, rope all down securely. Attach 20 ft. of hose, wear tortoiseshell goggles, and you then can face the tar-distillate washes and do your tall trees efficiently and in comfort.—W. P. W.

345. *Training Young Fruit Trees.*

Young fan-trained fruit-trees often develop one or two branches at the expense of the remainder, resulting in unsightly, lop-sided specimens. In this case spare the knife; unfasten the branches from their supports, retie the weak-growing shoots in a perpendicular position, while the stronger and more vigorous ones are brought down and tied to the horizontal according to the degree of growth. The tendency is then to invigorate the weak shoots and retard the robust growths. Re-train the branches into the desired positions during the next dormant season.—J. W. H.

346. *When Pruning Fruit Trees.*

In addition to the ordinary pruning saw, I find that a joiner's panel saw is invaluable when pruning fruit-trees. This has a thin blade of about 10 ins. length, which screws into a pear-shaped boxwood handle. For thinning crowded fruit-spurs, cutting out old wood from flowering shrubs, etc., it cannot be beaten. The thin blade will go where the ordinary pruning saw cannot be used without doing harm.—W. C. E.

347. *Trees on Walls.*

Possessors of new houses who decide to grow peaches, apricots, pears, or other trees against the walls are strongly advised to begin by having four or five wires firmly fixed about 1 ft. apart. The cost is small, and it saves an infinite amount of time and temper afterwards. When shreds are used these soon rot and a rough wind tears the nails out, so that much time is spent replacing them, and both tree and wall are often damaged. With wires laying in new wood and keeping the tree trim and shapely is quite a simple and pleasant job.—K. B.

348. *A Use for Black Currant Prunings.*

Black currant prunings make excellent shelter for sweet peas during the winter. If the prunings are trimmed and pushed thickly into the soil around the peas they afford partial shelter against wind and frost. They also afford supports up which the peas can climb. In addition they may form strongly rooted black currant plants ready to be transplanted by the time the sweet peas are dead.—J. H. B.

349. *A Gooseberry Hedge.*

The idea of making use of gooseberry plants as a dividing hedge, or edging for paths, is worth consideration. Prepare the cuttings in the usual way, but only leave two buds on opposite sides of the stem and close together. Insert these cuttings in the desired position about 9 ins. apart, so that shoots produced from the buds will all lie in the same plane—i.e., along a line joining the cuttings. As will be seen, as these shoots grow they can be interlaced and made to support each other. In the course of two seasons quite a good network is formed, and if the laterals are summer-pruned and then cut back in the winter, good crops are obtained, which

can be gathered with very little difficulty. The pruning is also quite straightforward.—H. B.

350. *Treatment of Strawberries after Fruiting.*

Few people realise that the time of the year at which strawberry plants make most of their growth is in the months of July and August, so that, after the fruits have been picked, the beds should receive a thorough cleaning and hoeing between the plants, and in order to encourage root growth, a little soil should be drawn up around the crowns of the plants, especially those of one-year-old plants, where heavy rains have washed it from around the crowns. This earthing-up also acts as a preventive against the disease known as red plant.—M. H. G.

351. *Economical Fencing for Cordon Fruit Trees.*

In small gardens the cost of straining posts for wire fenceings for espaliers, cordons, etc., is prohibitive, 12s. 6d. to 15s. each. An economical fencing can be erected as follows: Obtain angle iron standards, $1\frac{1}{2}$ ins. by $1\frac{1}{2}$ ins., 8 ft. overall, fitted with earthplates, the L's bored at intervals for bolts, cost 2s. 6d. each. For horizontal members use three or four lines of the 9-ft. tubular rods, either $\frac{5}{8}$ in. or $\frac{3}{4}$ in. diameter, the latter for choice. These are sold for curtain rods or lawn tennis court surrounds, and have the ends flattened and bored for bolts; they cost from 1s. to 1s. 2d. each. With a little ingenuity and the addition of lighter sections for intermediate posts and Government surplus wire, erections can be made upon which all kinds of fruit-trees can be trained.—C. A. W.

352. *A Raspberry Manuring Hint.*

When manuring your raspberries, bear in mind that they like heavy but well-drained soil; therefore, pig manure is just the thing for them. The biggest raspberries I have ever seen were grown on the site of a year-old pig manure dump. The good thing about pig manure for mulching is that it does not dry and become a husk as quickly as cow and horse manure. A good artificial for raspberries is basic slag, but there is no need to get it on before January. No good is done by early applications being washed away by the autumn and winter rains.—C. P.

353. *Tying Raspberry Canes to Wires.*

What a tedious job this is when one ties each cane separately. The following method, which I tried with great success, will be found to save hours of work: Get a ball of thread as used by saddlers, wind this on to a small or medium-sized cotton-reel. Then, having fastened the thread to the post at the end of the row, you place your first cane against the wire and give the thread a twist round the cane and wire; continue on in like manner all the way up the row. It is advisable to knot your thread to the wire, say, every twenty canes, in case of the thread breaking and so running loose all the length of the row. It is equally a saving of time when cutting away the old canes the following year.—G. W. G.

354. *Increasing your Raspberries.*

It will be noticed by those already possessing raspberries that young shoots or suckers spring up a little way from the old stools. Having previously prepared your land for the new plantation, take up these shoots or suckers when about 3 to 6 ins. high. Plant carefully and water if necessary. These will be found to make good canes the first year.—S. J. S.

355. *Loganberries on Walls.*

Those who find trained trees too expensive, or whose walls are too low, should plant loganberry canes at intervals of 10 ft. apart and tie the canes to wires running along the wall from end to end; the spaces between the wires 12 to 18 ins. Any wall suits them; of course, the more sunny the better, and the earlier the crop. These will produce abundance of fruit when once established, the only attention they will require is to cut out all old canes and tie back the new ones as soon as the fruiting is over; with a dose of liquid manure or a mulch when it can be spared.—A. H.

356. *Training Loganberries.*

Those who grow loganberries in large quantities may be interested to know how market gardeners treat this fruit. Each plant is set between *two* posts: one post takes the fruiting canes, while the young new season's canes are tied to the other post as growth advances. When the fruit is gathered, the old wood is cut out in the usual way, leaving one post bare, the other being occupied by the new season's growths,

which are thus already in position for next year's fruiting. The advantages of this system are manifold, three of the most important things being tidiness, free access for the sun's rays to ripen the new wood, and avoidance of that tangle which results when new and fruiting canes are allowed to grow up together. It is a plan which should also answer with rambler roses grown on posts, for these, of course, flower on the year-old wood, the flowering canes being removed as soon as the blossoms have faded.—D. S.

357. *More about Loganberries.*

I think the following hint on the transplanting of loganberries may be useful, in that it prevents the new growth—which comes simultaneously with the ripening of the fruit—from being in the way either when gathering fruit or later on, when cutting out the old fruited wood. When I transplanted my loganberries, as I had plenty of room at my disposal, I left some 8 ft. to 10 ft. between each plant. Then I trained all the canes in one direction, and when the new growth reaches a trainable length I train all these in an opposite direction, thus leaving the fruit-bearing canes all free. Another plan is to alternate, say, one right and the next left, leaving space between for new growth from both plants to be trained away from the fruiting canes.—B. S.

358. *Treatment of Apple Scab.*

The most serious fungus disease of the apple and pear is what is commonly called scab, or black spot. The method of attack by both pests and the appearance of attacked fruit are very similar, and for all practical purposes they may be regarded as one. These are diseases that can be prevented, but, once they get established, they cannot be cured without destroying the leaves and fruit. I have tried many remedies with varying results, but I have found the following treatment the most satisfactory: 2 lbs. of copper sulphate dissolved in 40 galls. of water, applied in spring before the buds begin to open, followed by a light spraying of Burgundy mixture; 2 lbs. to 3 lbs. of copper sulphate and $4\frac{1}{2}$ lbs. and $6\frac{3}{4}$ lbs. of soda in 20 galls. and 30 galls. of water respectively, applied just before the flowers open or as soon as possible after all the petals have fallen. Carefully applied, you can laugh at black spot. As soda might vary, it would be safer to

use testing paper for the Burgundy mixture: if it turns pink it will be safe; if it remains white, add more soda.—R. C.

359. *Plum Trees after Fruiting.*

This applies to trees carrying heavy crops of fruit and greatly assists annual fruiting. Assuming that the ground has been well limed every third winter to provide a base for manuring, and to assist stoning, phosphatic manure having also been applied in March, and nitrogenous when the fruit is swelling, we should, immediately the fruit has been gathered, prune out any broken branches, making clean cuts and painting over them with gas tar; then as far as the branches extend in the case of standard and bush trees, and about 3 ft. from the wall to the extent of the branches in the case of fan-trained trees, apply a good dressing of phosphatic manure (bone meal is excellent) at the rate of about 2 ozs. to 3 ozs. per square yard and well water in. This assists the trees to recover and plump up fruit buds for the following season.

D. W.

360. *Silver Leaf on Plum.*

I had a plum-tree very badly affected by silver-leaf, and I cut it back to within a foot of the stock, transplanted it, removed all soil off roots, gave it a very liberal supply of soot and mortar rubble and fresh soil on the roots. The following autumn I moved it again, giving it plenty of soot and mortar rubble, and it has not shown any sign of silver-leaf since.—H. S. B.

361. *Apple Rings from Windfalls for Winter Use.*

Peel and core any windfall apples you may have and cut out all bruised spots. Next cut the apples into thin rounds. Put some rows of string across the inside of your airing cupboard door and thread the apple rings on to them. Leave them there for a few days until hard and dry. They will keep all the winter in a bag or jar and be found very useful for sauces, curry, etc. Keep in a dry place and, if necessary, soak in water before using.—K. W.

362. *Storing Apples and Pears.*

It is often difficult to store apples and pears in a satisfactory manner. Get an old hammock and suspend it across the store-room or attic, fastening the sides as well as the ends to

make it lie flat. If the mesh is too large, place a net over it. This will make a fine place to store fruit, as the air can get all round.—V.

363. *A New Way to Keep Apples.*

Recent research has brought to light the value of a new method of storing fruit—that is, wrapping apples in oiled paper instead of tissue paper, or no paper at all. This oiled paper is quite cheap.—D. J.

364. *A Hint about Mulberries.*

No doubt many gardeners, like myself, have a mulberry-tree, and, apart from its picturesque appearance, get very little from it in comparison with the quantity of fruit it bears. I find that most of the fruit falls, or is knocked off by birds, before it is ripe, and that very few mulberries get ripe enough for eating, or, indeed, for stewing, unless quantities of sugar are added.

Unripe mulberries can, however, be utilised in the following way: Stew the mulberries and use the juice in which they have been stewed for stewing apples. This gives the stewed apples a splendid colour, much better than can be obtained by means of cochineal or other colouring ingredients. It also very much improves the flavour of the half-ripe apples one uses for stewing at the end of the summer.—W. P.

365. *Keep old Raspberry Canes.*

When the garden is being tidied, it is a good thing to bind old raspberry canes that have fruited into bundles, and store them in a dry place. These form the best supports for young sweet peas planted out in March or April. Use three canes for each plant, arranging them in tripod fashion.—L. F. R.

366. *The Value of Crab-apples.*

In 1920 I planted seven Siberian crabs in a circular bed on my lawn with the object of producing floral effect in spring and fruit in autumn “ruddier than the cherry.” I have since left that house, but the present owner informed me that certain of the apples which had never previously borne fruit had, since the crabs flowered, borne in profusion. The moral is plain—plant crabs!—E. P.

VEGETABLES

367. *How to use all your Outdoor Tomatoes.*

Tomato growers have to be very careful in autumn to save their crops from the first severe frost. The best time to pick the green tomatoes is usually from October 1 to 15, but in a favourable season some may be left up to the end of October without harm.

Separate out those that are likely to ripen and put them in flannel in cardboard boxes (tennis-ball boxes are useful), then place the boxes in a warm cupboard in the kitchen, look at them every four days, and you will be surprised to see how many of them ripen.—E. W.

368. *Green Tomato Chutney.*

Small tomatoes that are too green to ripen can be used to make a most excellent green tomato chutney, as follows: $3\frac{1}{2}$ lbs. each tomatoes, apples, and Demerara sugar, 1 lb. shallots, $3\frac{1}{2}$ pints vinegar, $3\frac{1}{2}$ ozs. preserved ginger, 18 red chillies, $\frac{3}{4}$ lb. sultanas, 2 tablespoonfuls salt. Boil vinegar and sugar in preserving pan, slice tomatoes and apples into this syrup (apples are weighed after peeling, coring, and quartering them). Add other ingredients. Boil all well, stirring all the time, until mixture thickens and sets firm when dropped on a plate. Pour into hot jars, and cover when cool. Keep in a cool place.

369. *Early Tomatoes Out of Doors.*

E.

One year, when I had planted my tomato plants out of doors, I put some old big frames over as many as I could, only putting the lights on at night and on stormy days. I continued doing this until the plants had reached the glass; then I removed the lights altogether, and from the plants thus treated I was able to pick the fruit four or five weeks earlier than from those plants which had to start their outdoor life without the protection of frames.—E. B.

370. *Colour in Tomatoes.*

Colour can be readily obtained in tomatoes if burnt soil and wood ashes in equal proportions are mixed with the soil.—B.

371. *A Second Crop of Tomatoes.*

Where early tomatoes are grown, a second crop may be secured by the following method. When four or five trusses of fruit are set and swelling, the plants are stopped and some of the foliage removed. A fresh shoot is selected from the base of the plant and trained up beside the parent stem. When the fruit of the first crop has been gathered, the old stem can be cut out, and if feeding is continued a second crop almost as good as the first will be available before the end of the season.—F. W.

372. *A Hint on growing Good Carrots.*

Choose the lightest piece of land in the garden. As soon as the land is dry enough, cover over with burnt ash and soot. Dig full depth of spade, leave to dry, then fork over, adding a little more soot. When the time comes for sowing, fork over again, rake level, draw the drills 15 ins. apart, into each drill sow a good sprinkling of common mustard, then the carrot seed. As soon as the seedlings are 1 in. high soot the bed every ten days. No other manure is required.—R.

373. *Exhibition Parsnips and Carrots.*

It is disappointing with parsnips and carrots which are intended for exhibition to find on taking up they are fork shape. To be assured of good straight, long parsnips, make holes with a crowbar, working it in a circular manner, to a depth of three or four feet, with a diameter of about four inches, gradually tapering off. Fill up with soil passed through a $\frac{1}{4}$ -in. riddle, placing three or four seeds in each hole. When seedlings are about an inch high pick out those not required, leaving the strongest one, and, if possible, in the centre of the hole. One year I had some quite 35 ins. long. The same treatment applies to carrots, but holes should be only 18 ins. deep.—W. H.

374. *Sowing Onions.*

Most people sow their spring onions too thickly, with the result that when thinned the onion fly starts to work. My plan is to sow the main crop so that no thinning is required. This is done by mixing the seed with double the quantity of sifted soil or sand and then sow in the ordinary way, ignoring the fact that you have mixed anything with the seed. I

find the onions generally come about right without any thinning, and are large enough for general use.—A. B. C.

375. *Increasing the Size of Onions.*

During dry weather, when the soil is hard, onions are often unable to make any size in the bulb, thus causing an excess of top growth. A good plan to check this is to remove the soil round the plant and expose the bulb, when it will soon begin to get larger and lose its leek-like appearance.—C.

376. *Treating Autumn-sown Onions.*

Autumn-sown onions (Tripoli) are apt to run to seed, and in some instances more than 50 per cent. will bolt and be spoilt. A very simple and effective remedy is to take a sharp-pointed knife and pierce the stalk of every seed onion about halfway between the bulb and the green, $1\frac{1}{2}$ ins. long. The seed stalk will then grow through the cut and continue to grow on the side of the bulb without stopping the growth of the bulb. Every onion thus treated will bear comparison with any onion that has not gone to seed.—E. H.

377. *Onions Running to Seed.*

When transplanting autumn-sown onions care should be taken in lifting the young plants and in making them firm in their new position. Many growers, particularly on light soils in the south, are troubled by many of the plants running to seed in late summer, but this can be remedied to a large extent by planting only the medium size plants, leaving the strongest in the seed bed for drawing young. In this way the "bolter" can be practically eliminated from the crop.—W. C.

378. *An Ideal Way of Storing Onions.*

Onions require considerably more drying in a wet season. A good way to store them is on trays made of small mesh, about 1 in., wire netting. A piece of netting 3 ft. to 4 ft. will be wide enough. Thread a stick through each end and suspend them shelf-like in tiers about 8 ins. or 10 ins. above one another. These trays enable the air to pass between the layers of onions from the bottom as well as the top, and prevents many of them going bad through dampness. This method of storing does not need much space, and allows them to dry thoroughly.—A. J. F.

379. *Another Hint on Storing of Onions.*

To prolong the keeping of onion bulbs place them in a moderately hot oven for a few hours until the outer scale leaves become quite brittle. When thoroughly dry they should be stored in a wire netting cage, suspended from the roof of an outhouse, to allow a good circulation of air to pass freely among the bulbs.—S. G.

380. *Sowing Spring Onions.*

When the time for sowing spring onions comes a good way I find is instead of drawing the drills across the bed with the rake or hoe, to lay a long, thin baton of wood, any length but not more than $\frac{1}{2}$ in. wide along the line, and just press it lightly into the soil with the foot, which will leave an impression $\frac{1}{2}$ in. deep, which proves a splendid drill for onions and not too deep.—W. D.

381. *Earthing-up Celery.*

The earthing-up of celery can be greatly simplified by the use of an ordinary garden line. Place one stick, with line attached, firmly in the ground at the bottom of the trench; then, keeping the line just taut, twist it once round the first stick of celery about 4 ins. or 5 ins. from the ground. Proceed to the next plant and repeat the operation until all the plants are secure. Finally, place the second stick in the ground. Both hands are now free to carry out the work of earthing-up quickly. When soil has been placed up to the line, this can be easily untwisted and a second operation can be commenced, if necessary, higher up the plants. A great saving of time will be effected if this method is carried out.—F.

382. *Preserving Celery during the Winter.*

Obtain a bundle of wheat straw. Take hold of as much as possible at one end, and keep twisting and gradually pulling till it forms a band of the same length as your row of celery. Make three such bands. Lay one on each side of the earth ridges as close to the celery heads as possible. The remaining band place on the top, thus forming a cover which will keep out rain and stop the hearts from rotting.—T.

383. *Blanching Celery.*

Recently I had the pleasure of seeing a novel and new method to me of blanching celery. This was in a market-garden in the Lothians. The celery had been planted on the flat and not in trenches. The plants stood in clumps of twos or threes in the rows. Around each clump was placed a zinc cylinder, and the space between the celery stalks and the cylinder was filled with wood-wool. Another method seen in the same garden was : boards placed along each side of the row fairly close to the plants. These boards were held in by convenient stakes driven into the ground, wood-wool again being used between the celery and the boards; the results being beautiful blanched celery, without the tedious operations of opening a trench to begin with and having to fill it up afterwards to promote blanching. Moreover, the celery was clean.

384. *Humus for Shallow Chalk Soil.*

.W.

Each year, in early spring, I sow, very thinly, a few rows of cress, which is allowed to run to seed (I generally harvest about half a gallon of seed). Between such crops as potatoes, peas, beans, and in any vacant space as crops are cleared, I sow cress. This grows very rapidly (while young it may be used as salad), and when 4 ins. or 5 ins. high is dug in. The result is very beneficial. The greenstuff quickly decays and adds considerably to the "holding power" of my shallow, chalk soil.—E. S.

385. *Sprouting Early Potatoes.*

Everyone likes to have new potatoes as early as possible, and I generally dig new potatoes in my district before any of my neighbours. Getting the seed fairly early, I place each tuber carefully into a shallow box which has an inch or so of leaf-mould at the bottom, and put them under the greenhouse shelf, keeping them just moist. By March they have strong shoots, and have also started root action into the leaf-mould. Lifted carefully out and planted into the potato plot, they never have a check, and are soon above ground going strong.—S. T.

386. *How to obtain Earlier Potatoes.*

To obtain an earlier supply of potatoes the following will be found very useful: Before putting tubers up to sprout,

place a layer of dry, riddled ashes to a depth of 1 in. in the boxes or trays, placing tubers as is usual. The ashes should be moistened, allowing the part which is resting on the ashes to become rooted. Under ordinary circumstances the tubers would not be rooted until a fortnight or so after planting. Care should be taken when removing for planting not to pull off any of the roots. A good soaking of the ashes will prevent any fear of loss in that respect. Should the tops appear when frost is expected, straw should be placed over them at night, taking it off in the morning and placing it in the rows ready for use again.—W. M.

387. *Lifting Potatoes.*

When the foliage turns yellow, it is time to dig up early potatoes. The work must be done promptly, otherwise, should the weather turn very wet, the tubers are almost certain to be ruined by disease. Another reason for avoiding delay is that the ground is cleared for another crop. Store the tubers in a cool, dark place, or clamp them in ridges in a convenient part of the garden. The ridges should be low, and thatched with turves or straw to exclude light. Tubers set apart for seed should be of even size, shapely, and free from blemishes. These need not be placed in the dark, but, on the whole, they will be best clamped for the present.—C. F.

388. *Storing Root Crops.*

The main principles of preserving root crops are: first, prevent sweating; second, exclude wet; third, keep out frost; fourth, prevent roots growing. To prevent sweating, openings may be left at the top of a pile of roots, or, when the pile is half built, a little clean straw, that is quite dry, in bundles, may be introduced. To keep out wet, see that good covering is provided. To keep out frost, use extra covering in severe weather. To prevent roots sprouting, cut away close to the crown, and keep them as cool as possible. While parsnips and carrots will stand close cutting, other roots will not tolerate cutting to the quick.—A. J. J.

389. *The Surface of Asparagus Beds.*

Obtain some old mortar rubble, put this through a $\frac{1}{2}$ -in. mesh screen, to every barrow of screened rubble add half a barrow of builders' red sand, mix well together, give the beds

a liberal dressing in the spring, about a barrow to 10 yds. or 12 yds., fork lightly into the surface of the beds. One bushel of wood ashes screened through a $\frac{1}{2}$ -in. mesh to every barrow could be added, also a little bone meal, if desired.—C. B.

390. *How to cook Big Beetroot.*

If beet has grown so large that it exceeds the dimensions of the pan, the colour may be preserved by cutting in half, the bleeding being sealed by applying a hot iron to both cut parts. Large beet can be roasted in the oven, but the flavour is not so good as when boiled.—E. P.

391. *A Novel Way of Growing Parsley.*

An old gardener told me of the following way of growing parsley and I have tried it several times with great success. Make a fine drill and sow the seed thinly. Before covering with soil, pour on the seed a kettleful of boiling water, then cover. The parsley will be up in about ten days instead of taking several weeks to germinate.—H. C.

392. *Planting Leeks.*

A convenient way to plant leeks is to make holes with a wine bottle, and to insert the leek in the small hole made by the neck of the bottle.—H. B.

393. *Watering Marrows.*

Vegetable marrows, which require plenty of moisture, are usually grown on mounds to insure good drainage, and thereby often suffer from lack of moisture in dry weather even when artificially watered, owing to water running away quickly. To prevent this, insert corks or wooden plugs in drainage holes of 6-in. pots, so that when filled with water it escapes drop by drop. Sink a pot near each plant until brim is level with soil, fill with water, and cover with piece of glass, over which place leaves.

By this method a constant supply of liquid is maintained, the pots only require filling occasionally; it also has the advantage of giving the water time to reach the proper temperature, thus avoiding chilling the roots, whilst if a little artificial manure is placed in the pots it is more economically used.

J. C.

394. *A Vegetable Marrow Hint.*

Heap all the grass cuttings from the lawn in a disused corner of the kitchen garden and leave to rot. About the beginning of April spread over the rotted mowings a thin layer of fine loam, or other soil, a few inches deep. Insert the marrow seeds in this soil in the first half of April. The plants soon show themselves and make much better progress than if first grown under glass in the usual way. The rotted grass supplies heat and moisture, and the plants grow at a tremendous rate. Watering can be dispensed with in the warmest weather.—M. H.

395. *To make a Successful Marrow Bed.*

Make a mound of any garden rubbish, cover with soil, then one or two barrow-loads of good, short, stable manure. Work up two barrow-loads of soil with a good sprinkling of slaked lime, shape it up, and leave it for a few days before putting in the seeds, taking care not to have it too sloping, or the water will run off when the plants are watered. A good way of protecting the young plants from frost or cold winds is to bend over some wire netting and cover with sacks or matting.

N. W.

396. *Keeping Marrows.*

Vegetable marrows may be satisfactorily preserved for winter use in the following manner: Cut the marrows at the end of the season with as much stalk as possible. Now cover the cut part with melted sealing-wax, taking care to close it up altogether. In this way the air is entirely excluded and there is no risk of the marrow starting to shrivel, as often happens when the cut part is left exposed.—R. E. L.

397. *To make Marrow Chunks.*

Four pounds of marrow, 2 lbs. of sugar, $\frac{1}{2}$ lb. of preserved ginger, two lemons. Cut the marrow in pieces about $1\frac{1}{2}$ ins. square. Put on the fire in a jelly pan with just enough water to cover. Bring to the boil, then drain away water. Return the chunks to the pan with $1\frac{1}{2}$ pints of water and boil ten minutes. Strain again, keeping the water. Put water on with sugar and juice of lemons to make syrup. When boiling put in chunks and ginger, cut also in squares, and boil for half an hour, or until marrow is clear. Put in wide jars and cover at once.—M. D.

398. *Seakale.*

In autumn most gardeners attend to their seakale beds. One so often sees small heaps of cinder ashes which have not been removed at the proper time, and consequently the seakale has grown into long, straggling, and weak crowns which, if left alone, would not produce a good crop the next spring. The best method of treating these crowns is to remove all the ashes and cut off the seakale level with the ground, and give a good dressing of salt. Now cover with margarine boxes, size 13 ins. by 13 ins. by 14 ins. deep. The lid having been removed, place bottom uppermost. These boxes may be procured from any stores at about 3d. or 4d. each. Cover the boxes with a liberal supply of leaves, and good seakale will be the result. If the boxes are given a dressing of wood preservative they will last for years.—F.

399. *Young Cabbage Plants.*

Many amateur gardeners and allotment holders purchase their young cabbage plants, especially in early summer. Unless precautions have been taken with the lifting of these plants and subsequent care taken to avoid root dryness, much damage is done to the root system. I find it a good plan to treat purchased cabbage plants as follows : Dig a hole in the garden, and in this make a thick puddle, insert the roots in this puddle, covering them with more soil, and leave them protected from strong sunshine for a day or two. This encourages new roots to the extent that the plants suffer little when planted in their permanent quarters.—J. H.

400. *When Planting Cabbages.*

When planting cabbages the soil should be very firm, as loose soil tends to make the plants grow flabby and soft. However, firm soil usually contains a large number of weeds, and these should be cleared while hoeing the ground. Then the line should be set and a number of holes made with the dibber. These holes should be filled with water, which must be allowed to run away. While this is going on the plants should be drawn from the seed-bed and the lower portion of the root cut off. They should then be tied in bundles and allowed to stand in a bowl of muddy water for about an hour. This allows the plants to draw up a supply of water. Then the plants should be placed in the holes and pressed

firmly in. A little dry soil placed around will prevent immediate evaporation of the moisture.—G. W.

401. *How to get Early Greens.*

Instead of pulling up the roots after savoy cabbage has been cut, strip off any decayed leaves and cut across each way of the top of the stalk, and in a very short time they will begin to shoot out for greens. I have found them to be ready some time earlier than the curly or other greens. It is a great help if one has a small garden, and being early they are over much before the spring planting.—T. W.

402. *A Use for " Bolted " Lettuces.*

Most gardeners, sooner or later, are faced with the problem of what to do with a batch of lettuces which have prematurely gone to seed. Usually they are either fed to the fowls or relegated to the "Adco" heap. Both admirable ways of getting rid of them, but there is a better—cook them. It is not at all commonly known how good the leaves of lettuce are when cooked like spinach. They should stew very slowly, but, personally, I boil them in just sufficient water to prevent them catching, strain off in a colander, press all the water out as far as possible and return to the saucepan in which they were boiled, add a nice piece of margarine and a little pepper, and heat for a few moments. Do not forget to add a few crystals of washing soda to retain the bright green colour. Do not take any of the stalks, just strip off the leaves as you would for spinach.—E. S.

403. *Dish of Rhubarb on New Year's Day.*

Get an old barrel (an apple barrel does well) and put it in a corner of your greenhouse or toolshed. Lift a good crown of rhubarb and place this into the barrel; give a good watering and cover up by placing a bag over the top of the barrel. Keep the crown moist by watering occasionally. I have done this for years, and always had my dish on the first day of the year.—S.

404. *Large Shallots for Exhibition.*

To grow fine, large shallots requires good cultivation and well-drained soil. Select a plot of ground not too heavy, as shallots thrive best in light soil. Dig two spits deep, or

bastard trench, dig in a good layer of rotten, mellow, farm-yard manure, and give a dressing of soot, then let it lay rough until a few days before planting. Draw a ridge with a hoe 6 ins. high, 9 ins. wide, working in at the same time a dressing of bone meal, then level ridge down with a rake. Plant the shallots in single rows along the centre of ridge at 10 ins. apart. The ridges should be 18 ins. apart. When plants are 6 ins. high, give a dressing of soot on a rainy day. I have grown shallots on ridges and on the level side by side. Shallots on ridges are far the best. They get more sun, there is more room for the bulbs to grow, and they ripen much better. When bulbs begin to swell, give a soaking of liquid manure; this will increase their size. Sutton's Giant is the best in cultivation.—B. R.

405. *Mulching Vegetable Crops.*

The placing of a mulch on the soil near growing crops of beans of all kinds, peas, and onions is time well spent. Early mulching is more beneficial than if it be left until the crop appears to be suffering before even a heavy mulch is applied. The best time is to put on the material directly a heavy shower of rain has fallen. It is wonderful how long the soil then retains the moisture. Half-rotted manure forms the best mulch, but lawn grass may be freely used in the case of peas and beans.—J. P.

406. *Sowing Broad Beans for Early Use.*

Late autumn is the time to make a sowing of broad beans. Now I find a good way to have a batch early and winter them safely is to dig a trench a foot wide and 18 ins. deep. Place well-rotted manure in the bottom, then a layer of soil, on the top of this a layer of last autumn's leaves, beech for preference. Now fill up to within 6 ins. of the top with a mixture of soil, soot, and wood ashes. Sow the seed on this and cover with 3 ins. of soil—that leaves 3 ins. to the top of the trench. This affords protection to the young plants as they appear, and in a severe time extra protection can be given by placing sheets of glass, or even canvas, over the top of the trench. I have had beautiful beans for exhibition the first week in July.—J. H.

407. *Practical Method to produce Early Peas and Broad Beans.*

Mix 3 parts loam and 1 part leaf-mould with a little sand. Sift through a fine sieve, and place the soil in the greenhouse for a few days before using, to warm and dry. Secure some plant pots (large "60's"), put in a few leaves, then three-parts fill them with soil. Place five peas in a pot, broad beans two in a pot. Cover with fine soil, leaving $\frac{1}{2}$ in. from rim of pot for watering, then place in greenhouse. One watering is sufficient until the seeds have germinated. When 2 ins. high place in a cold frame with plenty of air day and night. When planting outside, open a trench with a spade 3 ins. deep. Each pot will form a clump if placed 10 ins. apart in rows. I have found Peas Little Marvel and Pioneer, and Broad Bean Mazagan, the best for early use.—R.

408. *A Good Way to Get Early Peas.*

Take some rough turf, cut it into strips about 6 ins. wide and about $1\frac{1}{2}$ ins. to 2 ins. thick. Turn the turf so that the grass is at the bottom. Then take a small dibber and make the holes big enough for a pea to go in, making three rows in each turf, and 3 ins. between each pea in the rows. Place in a cold frame, and when the seedlings are about 6 ins. high harden off and plant out. When planting, draw out a drill as if for potatoes, seeing that it is even at the bottom. Take the turf containing the peas and place it along the drills, then draw the soil up so as just to cover the turf. I find that the Pilot pea is the most hardy. A good time to sow is about the middle of January.—E. M. H.

409. *An Efficient Method of Manuring Runner Beans.*

This method I have found successful for many years. Choose the required position for the current year's sowing. Dig out a trench $2\frac{1}{2}$ ft. to 3 ft. deep and 18 ins. wide. Use this cavity all the winter for garden rubbish, such as leaves, old greens, even the stems of Brussels sprouts, and household refuse may be deposited. Sprinkle with lime at intervals. When spring comes, fill in the trench and sow the beans in the usual way, a dusting of superphosphate at that time being beneficial. The trench proves a useful dumping ground and also provides, in due course, the necessary humus re-

quired for the roots of the bean plants to feed on. Pea trenches may be treated in the same manner.—S. H.

410. *To Preserve Beans for Winter Use.*

I have for many years preserved runner and kidney beans in the following manner, and they come out fresh, and are very much appreciated as a vegetable when others are scarce in the dead of winter. Get a large earthenware vessel and cover the bottom with about an inch of cooking salt, then lay a row of beans on the salt, cover up with salt, then another row of beans, and so on until you fill your vessel, covering the last row with about 2 ins. of salt. Store in a cool, dry place. Before cooking the beans steep them about one hour, and this takes the salt out of them.—S.

411. *A Different Way of Preserving Mint.*

The usual method of preserving mint is to dry it, but the sauce made in winter-time from the dried herb lacks the flavour of that freshly made. The best method is to gather the young leaves and mince them finely and to add sufficient fresh vinegar to make a stiff paste, and then bottle with airtight stoppers. This will keep for many months. When required for use, sugar and more vinegar are added to taste, and the sauce will be found to have the same flavour as if the leaves had been newly gathered.—T.

412. *A Horse Raddish Hint.*

To get long, straight sticks, plant the crown part usually cut off and thrown away. Make holes with a crowbar about 1 ft. or 15 ins. deep, and place the set at the bottom; fill in with light soil, old potting soil will suit with a little burnt rubbish mixed with it. This crown will keep growing until it reaches the top, and a straight stick will be the result.—D.

413. *Cabbages and Slugs.*

If ground that is to be planted with late cabbage—broccoli, savoys, and kales—be given a fairly equal dressing of rough kainit, or salts of potash (about 3 ozs. per yard), a few days before the lines are drawn out, little damage will come to the plants from slugs. Occasional dustings between the lines will keep the pests away. These dressings will also enrich the soil. As well as being a slug remedy they have the combined qualities of fine slow fertilisers. Dusting also be-

tween lettuce will be found of equal value. Freely dusted in frames and around the sides before placing boxes of cuttings, plants, etc., in them, will insure complete immunity from slugs. I have used them for years (in a rough state, as it lasts best) and never had the slightest anxiety about my plants. Salt may be used for the same purposes, but not with the same safety, or benefit, and would have to be sown on soil weeks before planting commenced.—W. G.

414. *Making an Asparagus Bed.*

The land should be prepared a few weeks beforehand by double digging and adding manure. If a three-row bed is required, the prepared site should be 5 ft. wide, and for two rows 3 ft. wide. In April plant two-year-old crowns in trenches 6 ins. deep and wide enough to spread out the roots, as this will allow a covering of 4 ins. of soil. Let the plants be 15 ins. from each other in the row and the rows 18 ins. apart, which will leave a margin on either side of 12 ins. Do not cut the first year.—H.

415. *Pitting Cabbage.*

In order that cabbage may be preserved for late winter and early spring use when greens are scarce, varieties of Drumheads and Winningstadts should be pitted in November or December in districts where severe frosts are experienced. Throw out a trench of sufficient depth; pull up the cabbage by the roots and pack tightly together, heads down in trench, roots up. Cover them well up the stems with soil taken out. The hearts will keep good till March, and the flavour of these varieties improve. Choose a dry day for the work.—G.

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ODDS AND ENDS

416. *Painting over Creosote.*

When wishing to paint woodwork that has been creosoted, give it a coat of "knotting" before applying the paint. This will prevent the creosote from staining the paint.—H.

417. *Erecting Fencing Posts.*

All wood fencing posts which are to be put partly into the ground should be treated in some way against rot. A good method is to give the portion which is to be placed in the ground two full coats of "Solignum," tar, or good oil paint; or, in the case of rough posts, slightly burn them, so as to form a coat of charcoal. The hole in the ground for each post should be about 2 ft. deep and about 12 ins. wider than the diameter of the post. Place a few cinders in the bottom of the hole, then, having placed the post in position, fill in about half of the hole with stones, broken bricks, or clinkers, and some fine cinders. Ram the whole well down and continue the operation until the stones, or packing, are a few inches above the ground. By keeping the packing above the ground it can be rammed again at any time, should the post become loose, and by keeping the soil entirely away from the post the water will drain away and decay will be prevented.—T.

418. *Saving the Cost of Besoms.*

Save handles of worn besoms, carefully removing the peg holding the twigs. Procure all elm suckers, keeping them straight, tie in round bundles very tightly, cut off thick ends, leaving the twigs 3 ft. long, and stack for future use.

When brooms are required, pull the stick ends in as tight as possible with a piece of rope, fix with two pieces of wire, drive in handle, and secure all with a peg right through handle between the two wires. Different kinds of brooms can be made in this way by using thick or thin twigs from birch, elm, common broom, hazel, willow, etc. These, when well made, last out three of the bought variety.—H. M. B.

419. *Old Brooms.*

When your old birch broom is too old for sweeping, do not use it for firewood. The handle will make a beautiful stake for your herbaceous border in summer, and the little twiggy bits are exactly right for supporting your sweet peas when only a few inches high and too small for the larger pea sticks. Ask your sweep to leave a little soot. Soot water is very good for pot ferns and aspidistras. Put some soot in a muslin bag and soak in water for a few days, and then water the plants once a week with it.—P. T.

420. *Uses for Old Strawberry Baskets.*

Place one inside another, and you have a splendid stock for starting next year's perennials. Strawberry baskets may also be used for forcing bulbs in the house; and if put over newly transplanted seedlings, will shield them from the sun without excluding the air.—G. G.

421. *Fitting a Broom Handle.*

The handles of brooms, when fitted in the usual way—that is, by simply tapering the end to fit the hole in the broom and nailing it in place—often work loose. If a cut is first made with a saw in the end of the handle to be inserted, and a wedge, slightly wider at the top and the same length as the cut, is placed therein and, with slight pressure, kept in position so that the shaft may be placed in the hole, and then driven home and nailed, there will be no further trouble with loose handles.—C. C.

422. *How to keep Tools Clean.*

All practical gardeners know the value of clean tools; but I am afraid that often at the end of a busy day cleaning is only rather badly finished. Many will call to mind the sand boxes in camp in war time, where we “cleaned” our knives by pushing them through the sand. Keep a sand box in the garden with some sort of cover to keep it rather dry, and when the rough dirt is scraped off trowel or fork or spade, give the tool a good digging in the sand and you will be able to put it away clean and smooth, ready to work smoothly when required. I have found no cleaning method so quick and handy. The sand can be used for any of the usual garden needs, refilling the box being an easy matter.—N. D.

423. *To make a Good Liquid Infuser.*

Procure an old tin with a tight-fitting lid, perforate with small holes, pass a piece of wire from top to bottom the same length as the tub is deep. Fill with the manure required, and stir by lifting the tin up and down by the piece of wire. This prevents coarse pieces stopping up water-cans, and the tin does not rot like an old sack.—B.

424. *Longer Life for Wooden Garden Sticks.*

When a new bundle of sticks is bought, stand them in about 4 ins. of "Solignum" or creosote for three or four hours. Take them out and well dry in the sun for a few days. This can also be done to those already used. They should first be washed and thoroughly dried, then treated as above.

E. C.

425. *To preserve Bamboo Canes.*

When taking up the bamboo canes previous to storing them, procure a jam-jar half filled with creosote, into which dip each end of the cane. This not only preserves the cane, but all insect life is killed.—H. B.

426. *A Time Saver.*

Gardeners being busy people I should like to recommend a home-made screen for sifting soil, ashes, gravel, etc., which I have found effects a great saving of time. Cut some 6-in. matchboard (or any piece of board about that width) into two lengths of 6 ft. and three of 2 ft. 6 ins. Nail one short piece square on the end of the two long ones and the two others on the back to strengthen the whole, leaving the bottom end open. Then cover back with strong $1\frac{1}{2}$ -in. wire netting, nailing a small piece of wood near the top against which to lean a prop when the screen is placed in a slanting position. The material to be sifted can then be shovelled to the top of the screen and, in falling down the netting, will be effectively and quickly dealt with.—E. G. D.

427. *To waterproof Working Boots.*

With wet weather comes the danger of garden boots letting in the water. You may, however, prevent this by making and applying the following waterproof mixture: Put some beeswax in a jar, well cover with castor or neatsfoot oil, and

stand in a warm place till the wax melts. Then stir the mixture thoroughly and allow it to cool, when it should be of the consistency of dubbin; but if too thick add more oil. To use, warm and apply while soft with a stiff brush. Then warm the boots gently and give a second coat, which will result in their being perfectly waterproof.—S. P.

428. *At the Bottom of the Garden.*

Instead of the narrow border which ran along the hedge at the end of our suburban garden and which was too shady to grow many flowers, we have built a low dry wall of the large, hollow, concrete blocks which are being used locally for building. These can be bought fairly cheaply and are quickly placed in position, a row only one block deep making a pretty edging to the formerly uninteresting border. In the centre a gap 3 ft. wide has been left, and the blocks built up on either side to form ascending steps, one block deep in front, three at the back. Between the two top blocks behind a plain seat is fixed. The blocks are planted—both in their hollow interiors and in the cracks between adjacent blocks—with aubrietia, golden alyssum, thyme, lithospermum, pinks, arabis, saxifrage, and sedums. The result is extremely pleasing.—J. H.

429. *Mortar for a Garden Wall.*

When building a rough stone retaining wall in a garden, I find it a good plan to use "mud mortar"—that is, earth mixed with water to the consistency of firm mud, in which the stones can be nicely bedded. These mortar joints give a wonderfully firm grip and are very suitable for planting or for sowing seeds.—J. J. C.

430. *Storing Seeds.*

I find that empty glass jars with screw tops are very useful for storing flower and vegetable seeds. For small seeds, I use vaseline jars; for large seeds, such as sweet peas, I used malted milk jars. These require no labelling, as one can see at a glance the seeds required for sowing. It is a much handier method than wrapping the seeds in paper.—P.

431. *A Useful Trowel for the Rockery.*

I find that an ordinary bricklayer's trowel is a most useful tool for the rockery, either for planting or working the soil.

Being pointed, the trowel is easily inserted between the rocks, and the risk of damaging small plants is lessened.—C. L. P.

432. *A Use for Hairpins.*

When layering pinks and carnations, instead of using wooden pegs, hairpins will be found more convenient to keep them in position. Cuttings of many small rock plants can be kept in the ground with hairpins in the same way.—N. F.

433. *Keeping Sand in Frames Clean.*

I have been very successful in keeping the sand in my frames clean, also the plants, chiefly cuttings, which are inserted there, by spraying at regular intervals with a dilute solution of potassium permanganate. I generally dissolve a few crystals in water and use the solution of a pale pink colour. I have, in addition, found it excellent for keeping down greenish mossy growths which become so prevalent in pots in the greenhouse.—T. P.

434. *A Substitute for Orris Root.*

It is not generally known that a substitute for orris root can be obtained from the blue flag iris. During the month of August cut several pieces of the brown roots which run along above the soil, scrub, peel off the brown part, and dry slowly for some weeks. When quite dry and hard, grate finely. The resulting powder has the delicious fragrance of violets always associated with orris root.—D. O. T.

435. *A Weeding Tool.*

A potato peeler, with a wooden handle, is a useful and inexpensive garden tool. Its rounded point easily removes dandelion and plantain roots from the lawn, and it is very effective for weeding gravel paths.—C. F. O.

436. *A Handy Tool.*

A tool that will save much backache during the summer months can be made in a few minutes by the least experienced handyman, for it is simply a small hand-fork fitted into a shortened broom-handle, $3\frac{1}{2}$ -4 ft. long being most convenient for persons of average height. With an implement of this length, flower-beds can be lightly forked over with the utmost ease and rapidity, while it will be found that one may work the soil right up to the base of the plants. This

tool is particularly useful for weeding beds containing bulbs, for with the ordinary hoe there is always the danger of cutting off a few plants if the work is done over rapidly.—D.

437. *How to use a Garden Line.*

A garden line incorrectly fixed leads to the making of crooked drills of uneven depth, and these can be avoided by taking a few simple precautions. First, set the free peg of the line very firmly and leaning slightly back from the direction of the bed. Then walk across the bed, unwinding the line, and at the same time break down clods or push on one side with the feet any stones in the course of the intended drill. Arrived at the other side of the bed, pull the line tightly, loop it once or twice round the peg which passes through the reel, and then push peg hard into the ground with a slight backward tilt. In the case of a long bed there is a tendency for the line to move, and this can be prevented by sliding one foot backwards on the line while cutting out the drill.

W. H.

438. *Leaky Water-cans.*

As an alternative to soldering a leaking can the following is a good method: Spread some thick tar over the parts that leak, and on top of this pour some boiling pitch. When this has dried the can will no longer leak, nor will it do so for a long time afterwards.—J. L.

439. *Delicious Home-made Pot-Pourri.*

An empty preserved-ginger jar makes a splendid pot-pourri jar, which can be filled as follows: Gather some rose petals, woodruff, balm, clover heads, sweet briar, syringa, lime flowers, lavender, wild thyme, wild mint, and a sprig of rosemary. Dry the various leaves and petals in open trays out of the sun's direct rays. Mix together with 1 oz. of powdered orris root and a few crushed cloves. This is also suitable for scent sachets, and keeps its freshness for years.

F. B.

440. *Scum on Exposed Masonry.*

Ornamental masonry often becomes covered with a green scum. This is unsightly, and difficult to remove by ordinary washing. Obtain some hydrochloric acid, and make a solution in four parts of water, and wash with this. Keep the acid

clear of polished surfaces. Afterwards wash with soap and water. Sandstone, marble, polished granite, and fancy stones are best painted with a paste of chloride of lime and water. First wet the stone. Then allow paste to dry on, afterwards brushing it off.—T. H.

441. *Repairs to Tools.*

Tools, the heads of which have become loose, are a constant source of irritation. Repairs often prove to be but temporary remedies, for the heads work loose again in a short time. To make a sound repair plug the hole with an easy fitting piece of soft wood. Remove the brass collar from the handle and replace by three or four turns of strong wire, say, about 16 s.w.g. Bore centrally with a gimlet to provide a starting point for the spike of the tool head, which is now driven into the handle. Hold the tool head and strike the handle on a firm surface for this operation. This method will be found of value for putting a different handle on a tool head.—D. C.

442. *A Use for Eggshells.*

Eggshells make excellent substitutes for the ordinary thumb-pot for raising sweet peas. The shells should be fairly large and broken as near the top as possible, to make as much depth of soil as possible. A small hole should be made in the bottom for drainage. Seeds sown in this way should be treated in exactly the same way as those sown in ordinary pots, but the great advantage of this method, apart from that of economy, appears when transplanting. Instead of knocking the mould out and disturbing the roots of the young plant, the eggshell is simply crushed gently in the hand as it is being planted out, without any disturbance of the roots.—J. P.

443. *A New Life for Old Poles.*

Old poles, which have been in the ground some time, may be given a new lease of life by digging out a small hole a few inches deep round each and then filling it up with concrete, bringing it well above the ground level. When the concrete has set, it can be painted with flat brown paint.—B.

444. *Conveyance of Leaves, etc.*

Nearly every gardener has, at some time, a large quantity of leaves or clippings from hedges and shrubs to move. This is

more often than not done by means of a wheelbarrow, buckets, etc.; but the ground is not always in a condition to use the former, and with the latter only small quantities can be moved at a time, and then bits drop *en route*. The most satisfactory and quickest method I have found is to obtain a piece of sack-ing 4 ft. or 5 ft. square; place it flat on the ground and pile the leaves, etc., on it, then bring each corner to the centre, and carry the whole to where it is required.—T. O.

445. *How to Waterproof Garden Nets.*

Garden and tennis nets may be given a considerably longer lease of life than they usually have if they are waterproofed. This is how waterproofing should be done: Dip the nets in boiled linseed oil, then roll them up for about fifteen minutes. Then hang them up to dry. When they are dry repeat the process. Go through the same process again with this mixture: 7 parts of boiled linseed oil to 1 part of copal varnish. When not in use, store in a dry, cool place.—C. W.

446. *Saving your own Seeds.*

When the time for saving seed arrives, the following method for cleaning the seed may be of interest. In the first place, the seed pods, when gathered, should either be dry or thoroughly dried. A method of drying the seed is to put the seed pods in a thin layer in cardboard boxes placed on a window-sill or shelf in the greenhouse. They should then be well rubbed between the hands to release the seeds, and the larger pieces of husks picked out by hand. For the actual cleaning process a "Robinson's Seed Sower" can be used, the hole being adjusted to meet the particular needs. For such seeds as wallflowers, candytuft, lupins, poppies, etc., the seed sower should be shaken over a box-lid sharply tilted, when it will be found that the seeds roll to the bottom, while the husks and dust remain behind.—E. L.

447. *Food from Sunflowers.*

It is not generally known that the giant annual sunflower produces large seeds which are eaten readily by domestic fowls and parrots; indeed, sunflower seeds are included in most of the retailed parrot foods. About 1 lb. of seed is the average yield of each plant, and ripening in the sun is all that is necessary. The seeds are very rich in oils, and are especially good for winter feeding.—W. T.

448. *Goldfish in the Lily Pond.*

The brilliant colouring of goldfish makes them a delightful addition to a water-lily pond, especially when the leaves of the lilies are in their red or olive stages of colour. It is almost useless, however, to place in the pool the goldfish usually sold in glass bowls. They are natives of Japan and will not survive an English winter out of doors, although they may, of course, be caught and transferred to a greenhouse tank when the weather gets cold.

English-bred goldfish are perfectly hardy, only needing to have the ice broken in very frosty weather to insure sufficient air. For the same reason the surface of the pool should be watered with a large can when there is a long dry spell in summer. Goldfish usually cater for themselves, but in summer they appreciate occasional bread-crumbs and ants' eggs.—C. H.

449. *Old Inner Tubes are Valuable.*

Those who have standard trees, in particular roses and young fruits, know the importance of keeping the stem bark unbruised, preventing sway, and also allowing for increasing stem girth. The usual stem to stake binding is sacking tied with string. Tied tightly, it stops the bark sap; and tied loosely, in the first good wind, the sacking shifts, the tree sways, and the bark is chafed by the string. Use, then, instead of sacking, strips of inner tube 1 in. or more wide, and sufficiently long to more than lap the stem. It will be found that, owing to its resiliency, the rubber, when tied, grips the inequalities in the bark gently but firmly, allows a good knot to be tied without compressing the stem, and the stem to swell without cutting the bark.—D. R.

450. *Another Use for Cycle Tubes.*

Old cycle tubes cut into $\frac{1}{4}$ -in. strips make rubber bands which will be found useful for scores of purposes in the home, while in the garden, for bunches of flowers, cos lettuce, cauliflower, etc., they will save time that is taken ordinarily in tying with string. A few carried in the pocket will be found handy for letters, newspapers, etc.

Don't throw away your old cycle tyre when you buy a new one. Cut out the thread in a strip a little over 1 in. wide, and use a length of this as an interlining when your other

tyre is getting a bit worn and inclined to puncture easily. A strip of the old tyre laid between the outer and inner is a wonderful protection from punctures, and considerably lengthens the life of an old tyre.—Y.

451. *More about Old Motor Tyres.*

Damage is often done to standard trees growing in a lawn by the lawn-mower bumping against them and bruising the bark. This can be prevented by placing round the tree trunk near the ground an old motor tyre kept in place by wire or stout cord.

L. B.

452. *To destroy Roots and Stumps of Large Forest Trees.*

To destroy huge stumps and roots of trees, get an inch auger bit, bore several holes as deep as you can bore, fill up with weed killer, then plug hole with a cork. Remove cork every month to refill with weed killer; eighteen months with this treatment will kill huge stumps, and roots of ash, elm, walnut, and all stumps. The weed killer soaks into the heart of the stumps, blacks and rots everything that comes in its way; it decays and simply rots away. This remedy was applied on a Hertfordshire estate with great success.—B.

453. *Another Way of killing Tree Stumps.*

I am often asked how I killed the stumps of two large elm-trees which four years ago were cut down near the high road in my garden. The roots came sprouting up all over the place and were a great nuisance. After the tree was cut down and cleared away, I dug a good deal of the soil away close round the stump and peeled off all the bark, leaving it quite bare. As the sap runs up the bark of a tree, it was a most efficient way of killing it. Since that date no sprouting roots have been seen. If in digging the garden, tree roots are dug up, they are always dead and rotten. The remaining tree stump makes a good garden seat.—M. E. T.

454. *More about removing Tree Stumps.*

Drill holes in the stumps and saturate the wood with salt-petre in the autumn. In the following spring or summer set fire to the stump, and every bit of it and its large roots will burn away.—A. G.

455. *Collecting Garden Rubbish.*

In gardens where a wheelbarrow cannot easily be used, coloured dust sheets will be found great labour-savers for collecting heaps of weeds, garden rubbish, etc. If spread out beneath a hedge, when clipping is in progress, especially where there are flower-beds at the foot of the hedge, the clippings can be gathered up in the sheet with ease.—D. V. S.

456. *Garden Refuse.*

Economy is necessary in all gardens to-day, and one of the items that lends itself to such is the disposal of garden refuse. A garden fire will destroy all tree prunings, and yield up with the ashes an appreciable amount of potash. Throughout the year all weeds, lawn mowings, discarded bedding plants, and any other rubbish should be heaped together. In the autumn all available leaves should be added, and also one barrow of good loam to five of rubbish. To complete the heap apply sulphate of ammonia at the rate of 14 lbs. to each cartload of rubbish, and then turn thoroughly, moulding the surface so that the water will run off. In one year's time the heap will be available as a substitute for farmyard manure, and the percentage of nitrogen available will be higher.—C.

457. *Burning Garden Rubbish.*

To burn a small quantity of refuse out of doors, four ordinary flower-pots will be found very useful. Place three of the same height inverted on the ground, and put a larger one upright on the top, so that a draught comes through the hole in the centre. You will then find that you have an excellent, inexpensive incinerator, which may be disbanded at will, and does not take up much storage room.—G. G.

458. *Home-made Incinerator.*

A very cheap but effective incinerator for burning all kinds of garden refuse can be constructed from old pieces of fairly strong wire netting. Take a strip of netting 2 ft. to 2 ft. 6 ins. wide and about 7 ft. long and bend round to form a cylindrical shape, fastening the two ends together by overlapping slightly and threading through some fairly stout wire. Form a bottom with another piece of netting cut roughly to shape and fasten to the upper portion already constructed by threading wire through the adjoining edges. Stand the con-

trivance on four bricks and it is ready for use. After a fire has been started with paper and wood or dry rubbish, quite damp refuse will burn in this incinerator, particularly if a breezy day is chosen for the operation.—L. K.

459. *Another Form of Incinerator.*

Procure 1 yd. or 2 yds. of coarse wire netting and two or three metal stakes. Shape the wire netting into a wide-mouthed cone. Drive the stakes firmly into the ground, and fasten the cone of wire between them with its mouth upwards and its bottom point a few inches above the ground. Waste paper, dead flowers, leaves, and all light rubbish will burn away quite clean without any attention, and the ashes will fall through the wire to the ground.—C. J.

460. *Good Kneeling Pad.*

Throughout the summer a gardener is constantly in need of a kneeling pad. May I suggest that a very good substitute for a more expensive one can be made with a piece of old motor tyre, by cutting off the outer rim, which can be done with a small sharp saw? A piece 16 ins. long will make two good pads. Holes can be punched into it at each end with a cold chisel, and tapes, or string, adjusted for tying round the knee. This makes an inexpensive and waterproof pad.—W. D.

461. *Another Sort of Garden Mat.*

An old rubber hot-water bottle makes an excellent kneeling mat for gardening. I always use one when weeding beds and paths. It eliminates back-bending, keeps the knees quite dry, and is soft. The handle can be slipped over the wrist for carrying from place to place.—M. W. H.

462. *A Third Kind of Kneeling Pad.*

A useful kneeling board which acts as a preventive of rheumatism can be made in the following manner: Take an old box about 14 ins. long and 6 ins. deep. Remove one of the wider sides. Place 2 ins. of thick horse-hair, or any other stuffing, on the bottom to act as a pad on which to kneel. Cover with a strip of an old mackintosh, or other waterproof material, the width of the box but a yard or more in length. The piece over this is for the legs and feet to rest on when kneeling, so as to keep them off the ground. If a strip is

nailed round the outside with a pleat at each corner and left open at the top it makes three useful pockets for seeds, labels, hand-fork, trowel, etc.—Q.

463. *To wheel a Heavy Barrow without Fatigue.*

Get an old bicycle inner tube, pass it across the shoulders and loop each end over the barrow handles. This, when you stand upright, lifts the barrow legs clear of the ground and takes all the weight off the arms. The "give" of the rubber tube prevents it cutting the shoulders as a rope would do. From experience I find this device increases the barrow pusher's capacity twelve times.—C. H. B.

464. *A Use for Old Venetian Blinds.*

Venetian blinds are now out-of-date for windows, but they may still often be found reposing on the floor of attics, or may be picked up cheaply at auction sales. The laths of these can be put to many uses in the garden. Cut in two they make excellent boxes for the sprouting of seed potatoes, the thicker laths at top and bottom being used where strength is required. They are also capable of being used for light trellis-work for roses or climbers in unexposed positions. The laths, though thin, are wonderfully strong, and if kept well painted they last a surprising number of years. The writer has used them, too, for the formation of hurdles for the protection of tender shrubs in winter. Packed with straw, bracken, or gorse, they keep off frost excellently. Frames of these laths with scrim tacked on may be placed against espalier fruit-trees in spring during the critical nights when blossoms are setting. November is a seasonable time for the formation of these structures. Other uses may occur to the reader.—L. D. W.

465. *Rolling New Gravel.*

To roll new gravel on a path is a mistake unless the gravel be dry or thoroughly saturated; between these extremes the roller will pick it up and a bad mess will be the result. This can easily be overcome—if the area be not too great—by spreading newspapers and rolling over them. The same method can successfully be used on a lawn, when—as is sometimes the case—a depression or bare patch is repaired by sprinkling mould and fresh seed on the top.—G. L. .

466. *Brightening a Dull Place.*

My back-yard was the usual *cul de sac* from the back-door to the end of the outbuildings, paved because its aspect forbade all hope of growing anything there. My wife's remark as she placed out her house plants one day gave me an idea, which eventually developed into a definite scheme, the result of which exceeded my most sanguine expectations.

A number of boxes were made, mostly from grocers' empties, their size approximately 12 ins. square by 9 ins. deep. Some feet, 1 in. thick, were fixed on the bottoms, holes were bored in the bottoms for drainage, and the outsides were painted.

A variety of hardy shrubs, such as box, retinosporas, privet, euonymus (green and variegated), were obtained and potted up in 8-in. or 9-in. pots. These were then plunged in the garden to become established. When established they were taken, as needed, and put in the boxes, a layer of mixed crocks and ashes, 1 in. deep, being put in the bottom of each box first. With the pots in position, the surrounding space was filled up with fine ashes lightly rammed and made firm.

With a duplicate set of established potted plants on hand, it became a simple matter to brighten up the back-yard, the plants being changed at intervals of a week or so, those having done duty on the yard being returned to the garden to recuperate.

Flowering plants were used occasionally, but were of no further use after blooming; their use, however, was pleasing, and gave the evergreens a longer period in their garden quarters.—G. W. S.

467. *A Firing Hint.*

When sawing wood save all the sawdust possible (keep dry), and when sufficient has been saved, mix an equal quantity of clay or sticky loam and coal or coke dust, well wet, and mix like mortar. Make a few moulds, 4 ins. by 4 ins. by 3 ins. deep, with no bottoms, and ram in the above mixture, leaving it to dry. These, when removed from the moulds, form bricks, which, if placed on the fire at night, will keep the fire going until morning.

If tar is mixed with the above, this will make a good burning fuel for daytime use. It is advisable not to use the poker too much, also to warm the tar before mixing. These mixed

with tar are also good for household use; care must be taken to pick out all stones.—H. M. B.

468. *Home-made Bird Bath.*

The only materials necessary are a small quantity of cement, an earthenware saucer, such as is used to stand large flower pots on, an ornamental piece of tree trunk about $2\frac{1}{2}$ ft. long, preferably oak and stripped of bark, and a little cement-coloured paint. Select the spot where the bath is to stand and plant the tree trunk in the ground to a depth of 1 ft., previously tarring the end, if possible, in order to preserve the wood. Give the portion above ground a coat of paint. Next give the earthenware saucer a coating of cement, smearing it on in a rough fashion, as the result is more artistic. When quite dry, fill with water and place upon the top of the tree-trunk stand. Plant clusters of flowers at the foot of the bird bath, as this gives it a prettier appearance.—J. A.

469. *More about Bird Baths.*

No garden is complete without its bird bath. It provides our feathered friends with refreshment and gives onlookers endless pleasure in watching the birds' antics while drinking and bathing. We have a shallow bath for small birds, and one a little deeper for starlings and thrushes. These bird baths were home-made in the following manner: Mix three parts of coarse sand with one part cement, and make a pliable paste with water. Put this into an enamel bowl (paper-lined) 18 ins. by 6 ins. in depth. Into this press a smaller bowl, allowing it to remain until the mixture is hard enough to turn out. This forms the bath $1\frac{1}{2}$ ins. in thickness. For the base fill a 6-in flower-pot with similar mixture. When hard turn it out, joining the bath and base with cement.—E. L.

470. *Making Liquid Manure in Small Quantities.*

Now that liquid manure is in demand as a stimulant for all fruit and flowers, those who are not fortunate enough to possess an old cask will welcome the following hint: Remove rose from watering-can. Three parts fill the can with stable manure (failing that, horse and/or cow dung), add a spadeful of weathered soot, fill up with water (rain-water preferred), and allow to stand a few days. Raise can on some structure, and place brick at rear to tilt can forward, when the liquid

will pour freely from the spout, free of all solid matter, and can be caught in a bucket. By continually adding water to the manure, several gallons of excellent liquid are obtained. The residue is useful for cucumber or marrow beds, mulches for fruit-trees, currant bushes, peas, etc.—F. B.

471. *To make your Labels show up Clearly.*

Many suggestions have been offered about the labelling of plants, but, use which label you wish, you cannot get a more lasting or better result than by using the "New" Stephens' Outdoor Ink. I have given this ink a thorough test, and find that for wood labels which have been painted and are perfectly dry it is much better than any indelible pencil, which is in use so much now.

It would be a boon to many purchasers of plants if nurserymen used this ink to write their tickets with, which they usually attach on trees or plants before despatch, for having tried this on these tickets I find it is absolutely waterproof, and it can rain on the ticket for days and you can still read your variety of plant without the fear of the ink running and smearing all the ticket. It can also be used for zinc or celluloid labels equally as well, and is used in the ordinary way with a clean pen. I suppose many nurserymen will stock it, for I purchased mine from our local nurseryman.—W. A.

472. *Preserving Plant Labels.*

It is a common experience that the action of damp soil soon makes the usual wooden plant labels quite illegible. The life of these may be considerably lengthened by following this method: Coat the labels with a good quality white paint, and before this is quite dry write the name of the plant. Put aside until thoroughly dry and then dip the entire label in shellac. The shellac when dry forms a transparent film which protects both the writing and the part of the label under the ground. A label thus treated will last several years.—W. A. W.

473. *Zinc Garden Labels.*

Those who regard the usual garden labels as unsightly may use zinc labels, easily cut from the sheet with scissors. The lettering may be permanently etched on the zinc surface by coating it with Brunswick black, inscribing the name with a steel point and applying dilute sulphuric acid. The black may

then be removed with turpentine. For rose stakes hang the label at the back by a brass pin through one end. The label will be concealed, but may be brought into view by raising it like a semaphore.—W. S. R.

474. *Labelling Rose-Trees.*

The best method of marking rose-trees, in my experience, is by means of aluminium tie-on labels, obtainable from various automatic machines. The letters are permanent, being embossed, and the labels are already holed for a wire tie. The cost is 1d. each. Where the names are short, two can be pressed on the same label, which can afterwards be cut across.

D.

475. *Inexpensive Labels.*

The ordinary wooden label soon perishes; metal labels are expensive. Very durable, unobtrusive labels can be cut from stout Willesden paper, which is rot-proof: 3 ins. by 1 in. is a suitable size. Mount each label in a cleft stick.—W. R.

476. *To keep Plant Labels Readable.*

It is often difficult to identify a plant that had died down, through the name on the marker being illegible.

An old hand gave me this tip: when using a marker always print the name on paint that is not dry. I found that no weather or soiling affects it; for, however dirty it is, a wipe brings the name up clear. I have dug up markers which were rotted to a shell, on which the name was quite plainly marked.

When I intended planting and used painted markers, I used to take some thin white paint and, putting a little on a piece of rag, smear the face of the markers, rubbing the paint flat with the rag. These keep damp for quite a while and, when written on and stuck to a plant, dry as if varnished.

N. D.

477. *Removing Tomato Stains.*

Gardeners growing tomatoes in any quantity are always faced with the unpleasantness of stained hands after they have been attending to the plants. It is not generally known that a few loganberries, or raspberries, crushed in the hands, and used as "soap," will entirely remove the stain, if the hands are afterwards washed in the ordinary way with water.—R.

478. *Softening Hard Hands.*

After handling soil during potting operations the hands become hard. The following hint will be most useful to those who find gloves impede the progress of potting: When washing the hands, pour a tablespoonful of ordinary paraffin into the water. This will soften the skin, removing the objectionable hard feeling.—T. H. H.

479. *A Remedy for Rough Hands.*

To keep the hands from becoming rough during frosty weather, take chopped beeswax, 4 oz., olive oil, 2 fluid ozs., place in an oven until melted; when cool enough to handle, roll into a ball and use by rubbing lightly over the hands after washing.—S. G.

480. *Keeping the Hands Clean.*

Before doing any kind of dirty work, such as gardening, painting, greasing cars—in fact, any job that does not entail getting the hands very wet with water—spread “Peldo” (a cream sold in tubes) over the hands and rub it well in. When the job is finished, just wash the hands in the ordinary way and they will be clean and soft at once. My husband and I have both tested “Peldo” thoroughly and find it absolutely invaluable.—M. R. R.

481. *Clean Hands after Gardening.*

Women gardeners will find this mixture invaluable for cleansing the hands. Mix thoroughly together 2 ozs. of powdered orris root, $\frac{1}{2}$ oz. of borax, 1 oz. of Castile soap, and 1 lb. of finest oatmeal. Keep in a well-covered tin or bottle. If used regularly after gardening or housework, the mixture will keep hands smooth and clean.—T. M.

482. *Storing Seeds in Sand.*

Some seeds quickly lose their vitality when stored in packets or boxes. If not required immediately, they may be stored in sand, provided that it is not so moist as to cause germination.—H. E. B.

483. *Repairing a Garden Hose.*

Bind the leaking places with a good brand of insulation tape (obtainable from any electrician's), taking care to com-

mence and finish binding an inch or so each side of the leak. One binding will do for a small leak, but a big hole will want a second and possibly a third binding—working alternate ways. The biggest holes can be effectively and cheaply mended in this way.—A.

484. *Home-grown Orange Blossom.*

Collect as many orange pips as possible, and soak them in a dish of water for eight or nine days, changing the water every other day. Fill some flower-pots with light sifted soil, to which has been added a little manure. Place the soaked and swollen seeds into the pots, crowding as many as you possibly can into each one. This crowding together is most important, as it forces the plants and makes them bloom. Keep the pots in the sun whenever possible, and always in a warm room, free from draughts. Be sure to cover them with a nightcap of newspaper at night if there is the least chance of frost. Keep the soil moist, and use lukewarm water in cold weather. After the first year the trees will begin to blossom, and will bear an abundance of flowers.—J. W.

485. *Draining Garden Paths.*

On garden paths surfaced with a close-binding gravel, and where the subsoil is sticky, it is often difficult to run the water off—especially where the middle of the path is rather high. To remedy this, dig a narrow trench, 6 ins. to 9 ins. deep, according to the width of the path, and 3 ins. deeper than the foundation of the path. Fill this up with rough clinkers, and finish off with 2 ins. of fine cinders. This may appear incongruous with gravel, but I can assure readers it is not so, and it is a very effective operation, for the water runs quickly off the gravel and soaks away through the clinkers very rapidly.—F. L.

486. *A Pseudo-Cement Path.*

At country houses, where acetylene gas is in use, the residue, when dry, may be turned to good account for path making. It should be used at the rate of one part residue to three parts finely sifted ashes, turned two or three times in a dry state and then puddled up exactly as if the mixture were cement and sand. This should be spread over the path (preferably on a layer of cinders) to a depth of at least 2 ins.

If the weather is frosty, the path should be protected by means of old sacks at night, until set. When almost set it is a good plan to roll it with a light roller. This path is practically equal to cement.—W. L.

487. *Making a Garden Path.*

Remove the sods to a depth of 8 ins. to 10 ins., level the bottom, put a layer of broken bricks about 2 ins. to 3 ins. deep, then spread a layer of cinders, 2 ins. deep, over same. Roll in, or well tramp the cinders until consolidated, and afterwards pour creosote over them until thoroughly moistened, to kill any vegetable matter in the subsoil and prevent weeds. Leave for about one day, then spread 2 ins. of gravel over the cinders, care being taken that the finished level of the sides of the path is about 2 ins. below the level of the grass margin, as this prevents the gravel from being kicked among the grass, and prolongs the life of the lawn-mower.—E. W.

488. *Uses for Wire Netting.*

Procure a length of wire netting 3 ft. wide, $\frac{1}{2}$ -in. mesh. Cut into yard lengths, and bend half-moon shape. These prove excellent for protecting strawberries, closing the two ends of each row with flat pieces of wood. When picking fruit, simply remove one length, and work the remainder down as the picking proceeds. When finished, complete the last row with the first length removed. When not required for strawberries, they will be found equally useful in protecting peas, radish, lettuce, and other subjects from the ravages of birds. Wire netting outlives other forms of netting many times over. It is simple to handle, and its many uses should prove a boon to gardeners and others, where expense is of first importance.

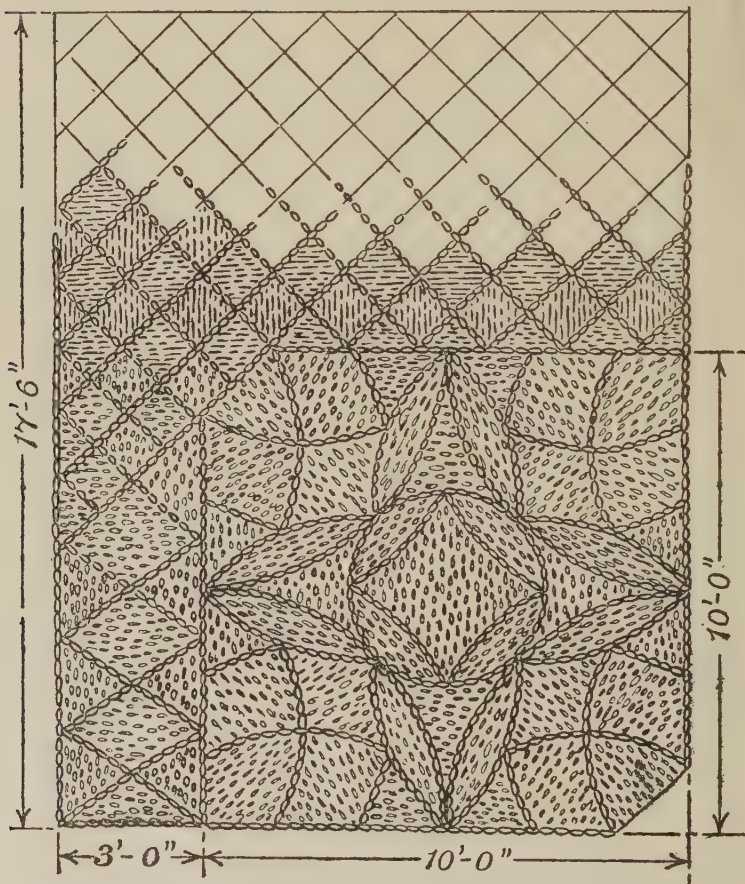
W. F.

489. *Return of House Martins.*

I have found the following a good way of insuring the return of house martins to their old nests in our house and barn eaves. When the martins have left in the autumn, I knock a small hole through the bottom of the nests with a long stick. This prevents the sparrows from appropriating the nests, and when the martins return next summer, they will immediately set about repairing the old home.—H. G.

490. *Old-time Paving.*

The accompanying sketch of a form of paving called "pitching" in Montgomeryshire may be of interest to readers.



It appears to be the original flooring of a cottage situated in what is now the kitchen yard of a house in that county. The design is well proportioned, but it is certainly difficult

to understand why the opposite corners at the two ends were cut off in the manner shown. The pitching, or cobbling, extends to a considerable area on either side of the patterned portion shown, but this is ordinary cobbling, such as is often seen round about old country cottages, leading, say, from the back-door to the wash-house on the other side of a yard.—L.

491. *Tar in Road Grit.*

The sweepings and scrapings from roads are most useful in the garden, but it should be remembered that nowadays they are very likely to contain tar. If this substance comes into contact with any part of a growing plant it will have a harmful effect. It is easy to find out whether the grit contains any tar or tar products in this way: Take a handful of the grit as a sample and put this into a pail of hot water, stirring well. A tarry odour will be apparent and a coloured oily film is seen on the top of the water. To free the grit from tar, spread it out finely in a dry place for four weeks and expose to the weather.—N.

492. *A Garden Lantern.*

If it is desired to take a candle into the garden on a windy night, tap an empty bottle round the bottom till it breaks and insert the candle into the neck of the bottle. I have often used such a lantern when going through the bush in Australia.

O.

493. *The Value of Wood Ashes.*

Pure wood ashes, as well as the remains of quickly burnt clippings of garden refuse, are valuable to the gardener by reason of their fertilising properties. They contain from four to eight, or even nine, per cent. of potash, and from one to two per cent. of phosphoric acid. Wood ashes can scarcely be wrongly used in the garden, but they are of the greatest value for leguminous crops, lawns, and potatoes. It is not, however, easy to obtain pure wood ashes, except in the neighbourhood of woods and forests, consequently gardeners now largely use kainit when a potassic manure is required. Crops that are liable to have their leaves attacked and crippled by insects may be preserved from their enemies by occasional dustings with wood ashes early in the morning. Turnips especially benefit from such applications. Wood ashes have another

value, they absorb ammonia, and may thus be utilised for surfacing beds of fermenting manure.—G. R.

494. *A Novel Window Box.*

Into a strongly made box, painted green, place potsherds over holes in bottom as drainage, on top of these some rough fibrous loam, then fill in with a good, lasting compost, such as three parts fibrous loam, one part leaf-mould, and sufficient sand to render it porous. In the front of the box several holes should have been previously made, into these the roots of small growing forms of saxifrages, sempervivums, or sedums should be inserted. These plants in due course will grow and cover the whole of the front, and be effective the year round. Spring flowering bulbs or plants may be planted in September. When past their best may be replanted with other suitable things, and these again may be replaced with summer flowering plants suitable to aspect. In this way window-boxes may be gay at all seasons.—A. L.

495. *Plants for Hanging Baskets.*

The sooner these can be prepared for the summer display the better. Those who can give the shelter of a glasshouse, or even hang them under a skylight in a shed, should plant their baskets by May. Gather some strongly growing moss, with a good backing of mould, for lining purposes. Any good potting compost containing plenty of fibrous loam may be used. Stand the basket on a plant-pot or pan to steady it. Line the bottom and level up with compost, insert the roots of hanging plants (*Verbena radicans*, ivy geraniums, etc.) between the wires and bed them thoroughly in the compost, line the wire above, and introduce bedding plants, such as echeveria, sempervivums, etc., at intervals, also sow seeds of *Tropæolum canariense* to grow out later. The upright plants (Paul Crampel geraniums, Tom Thumb fuchsia, lobelia, etc.) should be planted firmly and the surface levelled off. Use the compost damp enough to avoid watering for at least three days, to enable the plants to settle down before watering. Shade during this time to avoid wilting. After-care consists in giving a thorough soaking once or twice weekly and a daily syringing, removing dead leaves and flowers, and pegging trailing growths into position to cover the basket.

C. T.

496. *Keeping Flower Baskets Moist.*

Flower baskets soon get dry and need a lot of attention in the way of watering. This hint will save much trouble, and will insure that the plants do not suffer a great deal if, by any chance, they are left rather long without attention. Before lining the basket, or putting in any soil, place a saucer in the bottom, then make up the basket in the usual way. The saucer will retain some of the water and prevent the basket drying very quickly. This simple arrangement keeps the plants vigorous.—A. E.

497. *A Handy Ventilating Block for Frames.*

Ventilation plays a most important part in raising or propagating plants, and I have found this block most useful. Get a piece of wood 1 in. or $1\frac{1}{2}$ ins. thick, and 6 ins. square, saw out a piece 2 ins. deep, and 4 ins. long, the next cut will be 2 ins. square, and this leaves a three-stair block, which, if fastened to the frame with a short chain, is always ready for use, with three different ventilating heights.—W. S.

498. *To induce Root Fibres.*

When the planting season is with us, many readers will find their new roses, fruit-trees, and shrubs none too well furnished with the small fibrous roots that are essential for the proper nourishment of the plant. They may, however, be readily persuaded to grow by the simple operation of notching the *thick* main roots. Take a very sharp knife, and on the *under-side* of such thick roots make a series of longitudinal slits (as in layering carnations, etc.), care being taken not to go too deep or to sever the tongue so raised. Root fibres will be produced from the notches. I once had a batch of *old* Standard roses given me by a neighbour who was moving. I notched the roots of all mine, and all survived. My neighbour's gardener planted his trees in their new quarters without notching, and lost more than half his trees.—A. C. D.

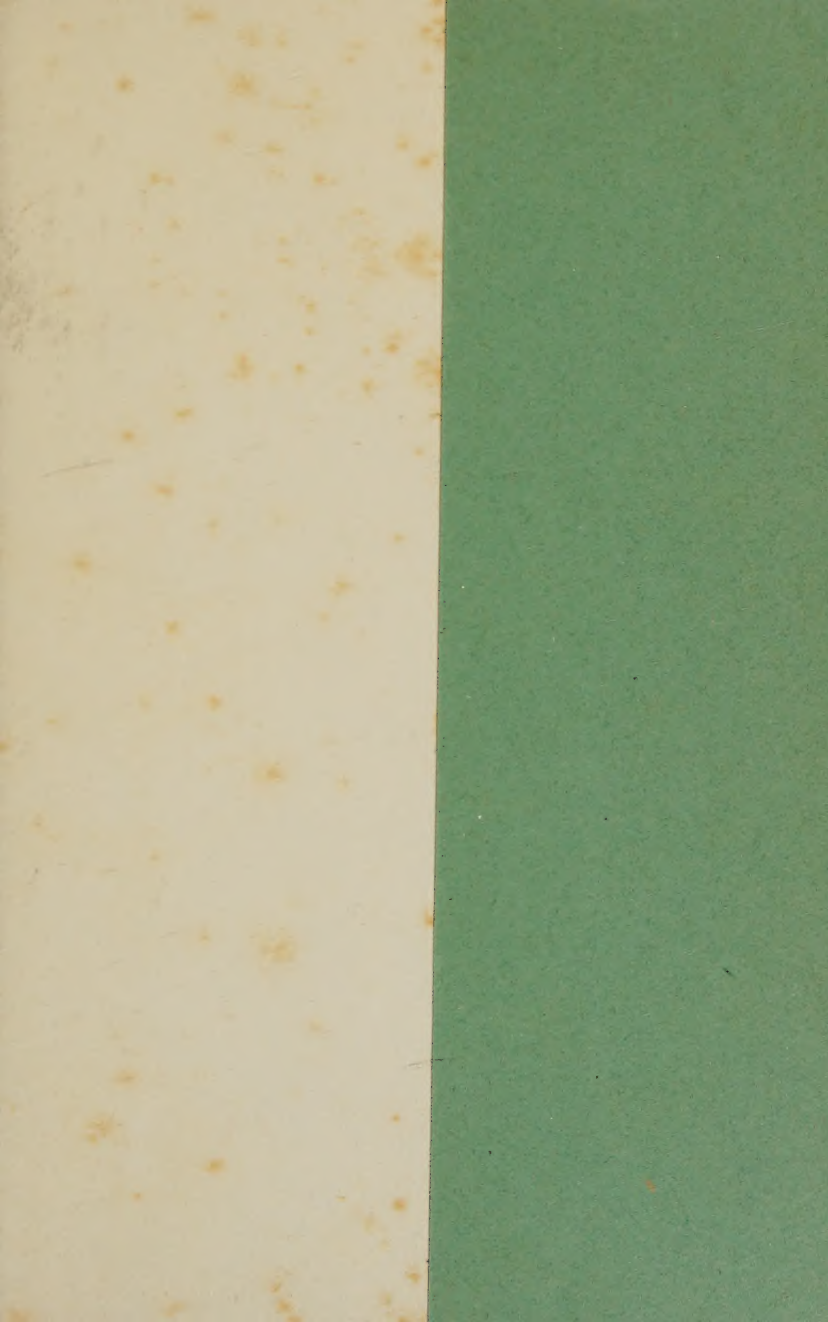
499. *How to take in Netting Easily.*

When the tennis season is really over string stop-netting should be taken in on a dry day. The following is an excellent way to store it and prevent its becoming a tangled mess. Take down the nets and lay out on the lawn, then take the end in one hand and, with a twist of the wrist, form it

into a rope. Make a loop and, using one hand as a crochet hook, draw the rope through to make another loop, and so on, forming a chain which is neat and easy to handle and yet is quickly undone when the nets are again required.—E. L. F.

500. *A Garden Scrap-Book.*

Procure an old foolscap exercise book. Number the pages. Divide the book up into alphabetical portions, taking just over half the book for this purpose. Use the other half by dividing it into twelve monthly portions. *Homes and Gardens* has a number of paragraphs which are of particular interest to an individual, whereas the remainder is of general interest. Personally, when I have thoroughly read each issue, I again go through and cut out items which particularly interest and concern me in my garden. I then paste them alphabetically into my scrap-book. I also extract the month's work and paste it into the monthly portion. In addition I retain any pictures of garden formations which may come in handy at a later date. This scrap-book forms a real ready reference, as it only includes those items which I personally require, and it has soon become "my own garden manual."—L. G. B.



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